

CASE STUDY

## Improving Stroke Care With Cutting-Edge Technology

Patients who have had a stroke could receive potentially lifesaving treatment more quickly thanks to the introduction of cutting-edge artificial intelligence technology at East Suffolk and North Essex NHS Foundation Trust (ESNEFT).



**Introducing this software will allow our clinicians to work closely with regional colleagues to review scans promptly... ensuring patients receive the best possible care.**

Dr Ramachandran Sivkumar

Lead Stroke Consultant at Colchester Hospital

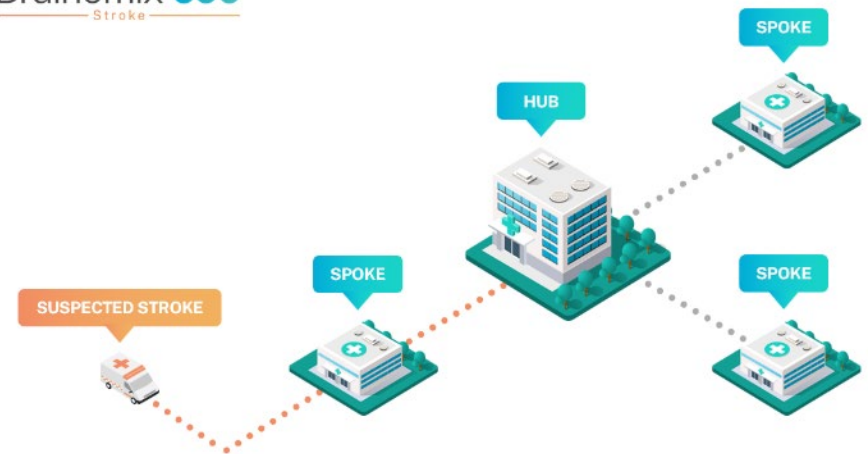
## THE CHALLENGE

More than 100,000 strokes take place in the UK each year...

**the equivalent of 1 every 5 minutes**

- Many district general hospitals do not have ready access to dedicated neuroradiologists to interpret every stroke scan.
- Physicians are often busy organizing blue-light ambulance transfers, referring patients, speaking to the patients relative, etc. Sometimes even looking at the CT scan can be a lengthy process
- Image sharing between hospitals and specialists is often strained, leading to increased patient transfer times

Brainomix **360**  
Stroke



## THE SOLUTION

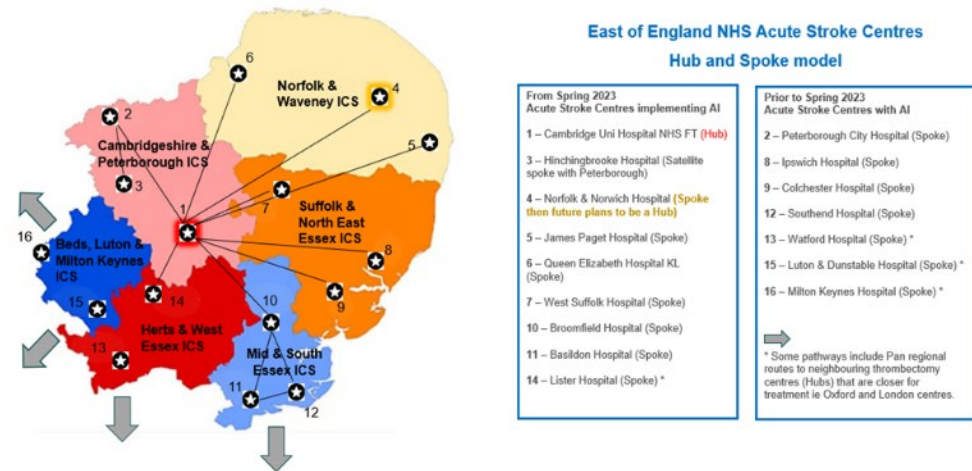
Brainomix Awarded – Artificial Intelligence in Health and Care Award by Secretary of State for Health 2020

The AI in Health and Care Award is designed to accelerate the testing and evaluation of the most promising AI technologies which meet the strategic aims set out in the NHS Long Term Plan

Through the grant Brainomix was enabled to deploy its software, Brainomix 360, throughout a number of UK stroke networks, including the East of England ISDN, contract awarded through the **Artificial Intelligence (AI) Software in Neuroscience for Stroke Decision Making Support Framework Agreement**.

The implementation of Brainomix **ensures that more patients receive the right treatment, at the right place, at the right time**, helping to save lives and prevent people from severe disability

## Stroke AI network across the EoE





## THE SOLUTION

**Time equals brain**, every minute matters in a patient population of over 6 million

Having access to an AI software has given physicians confidence when interpreting each scan, particularly when looking at CTA's to detect large vessel occlusions (LVO), a key indicator for mechanical thrombectomy eligibility – alleviating the stress caused by not always having a dedicated neuroradiologist on call.

Having scans ready immediately when needed with Brainomix 360 has helped to save precious minutes on site – alleviating the potential burnout caused by specialists having to organize transfers, refer patients, manage the family, all while having to think about their right course of action.

With access to the image sharing capabilities of Brainomix 360, connection between hospitals becomes eased, and transfer times have decreased – alleviating the hardships faced when communication between hospitals proves difficult

## The Largest Real-World Evaluation of Stroke AI Imaging



**50% INCREASE**  
In Patients Receiving Thrombectomy\*



**49 MIN/27% REDUCTION**  
In Door-In-Door-Out (DIDO) Times  
With Hospitals Using Brainomix 360\*



**83,000**  
Patients\*\*



**26**  
Sites



**3 YEAR**  
Period

\*K. Nagaratnam et al. "Impact of Introduction of Stroke AI Decision Aid Tool on Mechanical Thrombectomy Activity in England" Oral Presentation, ESOC 2024

\*\*Patient Level Data Collected Through SSNAP

## THE RESULT

### Increased Delivery of Care

Patients admitted to Ipswich who are eligible for mechanical thrombectomy are transferred to the Royal London Hospital (RLH), a comprehensive stroke centre in Whitechapel that serves as a supraregional thrombectomy hub for Ipswich and a number of other stroke units across the Southeast of England.

RLH are the epicentre of the largest stroke AI network in the UK, serving a population of over 9 million patients. Post implementation of Brainomix' Brainomix 360, mRS scores (0-3 months) increased from 33% to 55% within 12 months and continue to show an upward trend.

MT procedures increased by an additional 163 patients in the same period, totalling 256, making it the one of the busiest MT centres anywhere in the UK.

- Speedier delivery of care
- Superior performance metrics
- Improved patient outcomes

**Contact us to see how Brainomix can work for your stroke centre**

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The framework agreement is the first of its kind and has been designed to provide organisations with Artificial Intelligence software that supports the analysis of medical imaging for ischaemic or haemorrhagic strokes.

Acting fast is crucial. The solution helps clinicians quickly diagnose and action the right treatment for the patient which ultimately saves lives and provides a greater chance of recovery from disability. “

**Silvia Balan**

Framework Agreement Lead  
NHS Shared Business Services