Case Study

NHS East of England: Remote diagnostics and treatment for stroke healthcare

Visionable | NHS East of England

The Challenge

In the United Kingdom, stroke care accounts for 3-5% of all healthcare spending, and acute stroke is the third leading cause of years of life lost and disability-adjusted life years. While the severity of stroke varies from person to person, when stroke patients receive timely diagnoses and treatment, their chances for recovery improve significantly.

In 2010, NHS East of England (EoE) created the Stroke Telemedicine Stakeholder Partnership, in collaboration with the former East of England Strategic Health Authority (SHA). Their goal? To establish a collaborative partnership amongst the region's hospitals to improve the delivery of stroke thrombolysis for patients presenting acute ischaemic stroke (AIS).

Out of Hours (OOH), across the EoE, the combined national shortage of consultant stroke physicians and the region's rurality resulted in AIS patients being transferred by ambulance to one of two regional HyperAcute Stroke Units (HASUs), following a stroke diagnosis at a local hospital. For the best chance of recovery, eligible AIS patients required rapid assessment and treatment with a thrombolysis agent (Alteplase) within 3 hours of symptom onset.

At the time, fewer than 5% of patients eligible for thrombolysis in EoE were receiving the treatment within the critical 3 hour timeframe.

The Stroke Telemedicine Partnership needed to find new ways to connect patients with critical expertise when and where they needed it. They decided that virtual healthcare – and Visionable – were the answer.

The Solution

Using Visionable's advanced video collaboration and imaging technology, the NHS East of England Stroke Telemedicine Partnership team designed a simple but elegant solution.

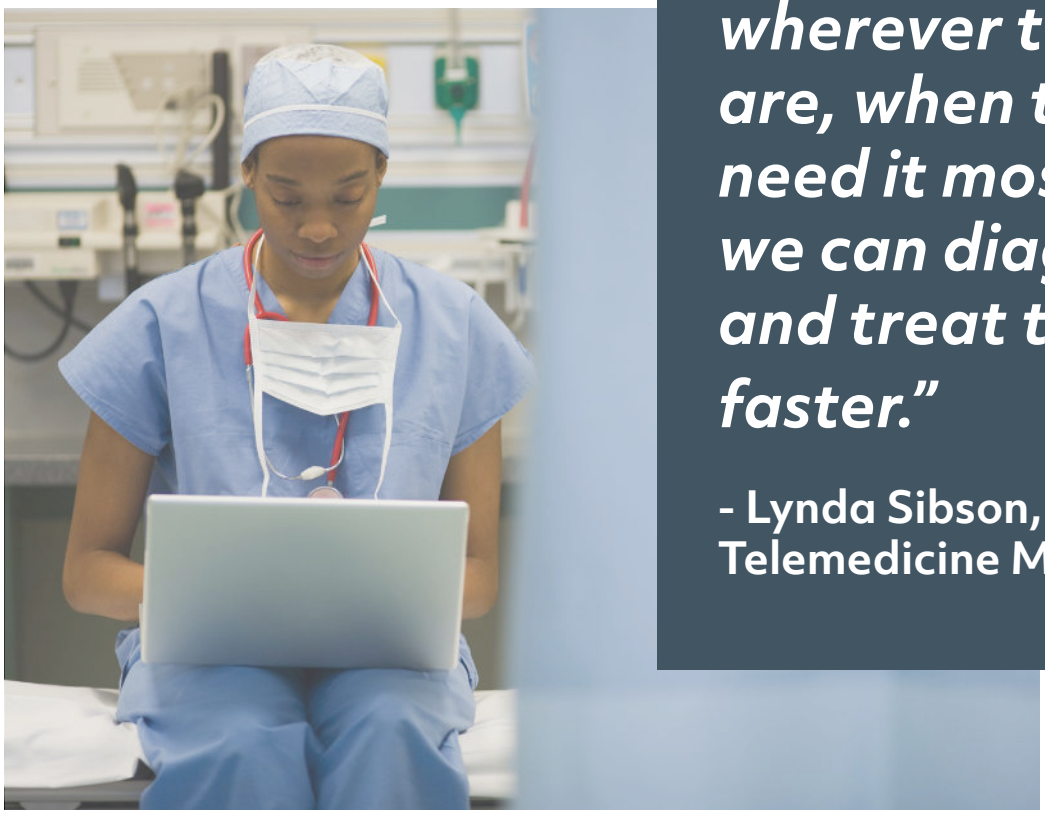
When a suspected stroke patient is admitted to the hospital's Emergency Department (ED), a portable, wireless-enabled "digital stroke cart" is rolled to their beside, with everything required for an immediate, full virtual consultation with a remote stroke specialist.

Visionable makes it possible for the remote stroke specialists to speak directly to the patient, their families and the local stroke teams, so they can carefully evaluate the patient's condition, whilst reviewing brain scans and other clinical imaging in perfect resolution via an image transfer system. This allows the stroke specialist remote access to scans directly and securely from the hospital's CT scanner.

With the clinical history, assessment of the patient's presenting symptoms and the scan, the remote stroke specialist is able to make an initial diagnosis in real-time. The team in the local hospital can then treat the patient immediately, minimizing critical door-to-needle (DTN) time and preventing unnecessary patient transfer to another hospital.

The Impact

Since November 2010, over 3,200 patients have been assessed, with an average of 41% receiving thrombolysis. Door-to-needle time has steadily decreased in recent years, and health and social care teams are able to work more efficiently. Patients receive faster, better treatment, because the stroke specialist comes directly to them. They are likely to spend less time in hospital, and their recoveries are often faster.



"When someone has a stroke, every minute counts. Visionable enables us to bring critical stroke care to patients wherever they are, when they need it most, so we can diagnose and treat them faster."

- Lynda Sibson, Stroke Telemedicine Manager

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Care without Compromise

- Best-quality video transmission
- Native resolution radiology images
- Ability for clinician to control camera remotely
- Secure patient data viewing capabilities

Product solution package:

Equipment - laptop, medical cart
Software - 2 Visionable clinical licenses

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