

# Stroke Video Triage Newsletter



Stroke Video Triage has been implemented since late 2022 in North Cambridgeshire (Peterborough) and West Essex. This pathway enables ambulance clinicians to connect via FaceTime on their iPads to stroke senior registrars & consultants, whilst on scene with patients. Both clinicians will then agree the correct pathway for the patient, and this can be from determining a time critical stroke patient, booking a CT scan prior to arrival of the patient, and the patient being met by the stroke team at the front door and taking the patient direct to the CT scanner, to determining that the patients presentation is unlikely to be a Stroke for example functional neurological deficit or systemic infection, and as such diverting the patient away from the acute stroke centre to their nearest emergency department. In some cases, patients can be deemed to not require conveyance, and can be managed in the community or if required seen either the same day or the following day in a TIA clinic.

This newsletter has been designed to share some of the outstanding results we have seen so far, as well as keeping you up to date with any changes. We are also keen to hear what you would like to see, so please get in touch and let us know!

**European Stroke Congress (ESOC) Munich 2023** Dr Radim Licenik (Stroke Consultant), Joanna Clayden (Senior Programme Manager for East of England ISDN) and Andrew Larby (Clinical Lead for Stroke Video Triage at EEAST) pictured above, attended the ESOC to present stroke video triage and also had an opportunity to visit the ambulance service in Prague to understand and compare pre-hospital care across Europe. The results were very well received at the conference.

**Expansion Update:** We are currently looking to expand this project across EEAST, and we are speaking to system partners about implementation in their areas. We will hopefully be able to update in the next edition in June 2023 our expansion plans!

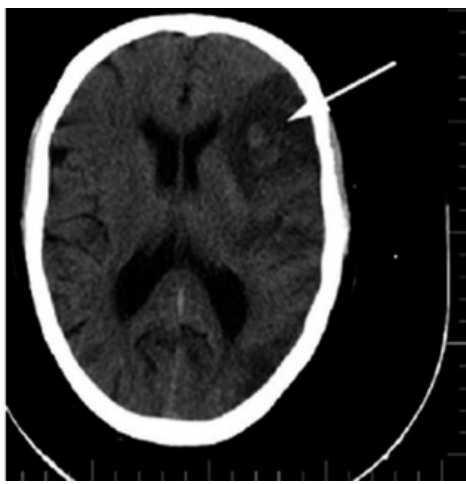
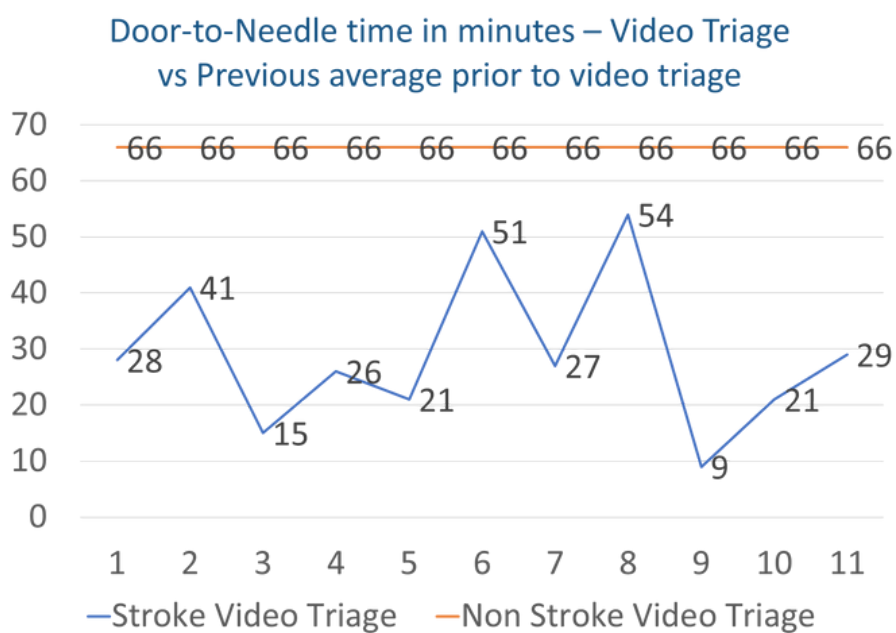
**FaceTime Update:** We have looked at a number alternative platforms to FaceTime to identify if there are any other platforms that may give us additional functionality. FaceTime remains the platform of choice currently however we continue to look at other options.

**Safety Monitoring:** Every week we undertake clinical case reviews of all patients who are video triaged. We identify patient outcomes to ensure safety. In the next newsletter we look forward to sharing these results with you!

## Direct to CT

Direct to CT has been implemented in North Cambridgeshire, as part of Stroke Video Triage. Patient demographics are obtained during the video triage call, which allow patient to be booked in and the CT scan to be booked prior to patients arrival. The patient has already been seen by a specialist over FaceTime and deemed suitable for a direct to CT pathway. Thus, the patient goes direct from the CT scanner to the ambulance.

This has dropped the door to needle times significantly, improving patient outcomes. The graph to the right shows the results so far, as you can see prior to video triage the average door to needle time was 66 minutes, which has now reduced to a median of 27 minutes, and the quickest case taking only 9 minutes!



Mehrpour, Masoud & Aghaei, Mahbubeh & motamed, mohammadreza & Jalali, Nazanin. (2013). Unusual Recovery of Aphasia in a Polyglot Iranian Patient after Ischemic Stroke. basic and clinical neuroscience. 5

## Why Direct to CT and the future of Direct to CT?

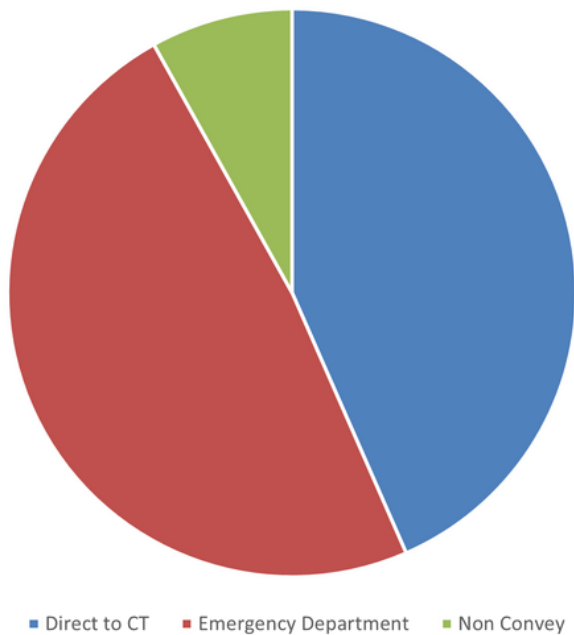
Direct to CT has shown a clear reduction in door to needle times and earlier recognition of haemorrhagic strokes. As a direct result, patients are receiving treatment earlier. Patients who are eligible for thrombolysis, thrombectomy and reperfusion therapy should receive it as quickly as possible from the symptom onset to improve outcomes and prognosis.

## But it's not just 4.5 hours

All patients who are video triaged, where Stroke is believed to be the cause of the presenting complaint, will be accepted through the Direct to CT pathway and should be pre-alerted to hospital. This is because thrombectomy treatment windows are longer, and haemorrhagic strokes need to be identified early as these patients may need surgery, rapid blood pressure management and/or anti-coagulant reversal.

# Right Destination First Time

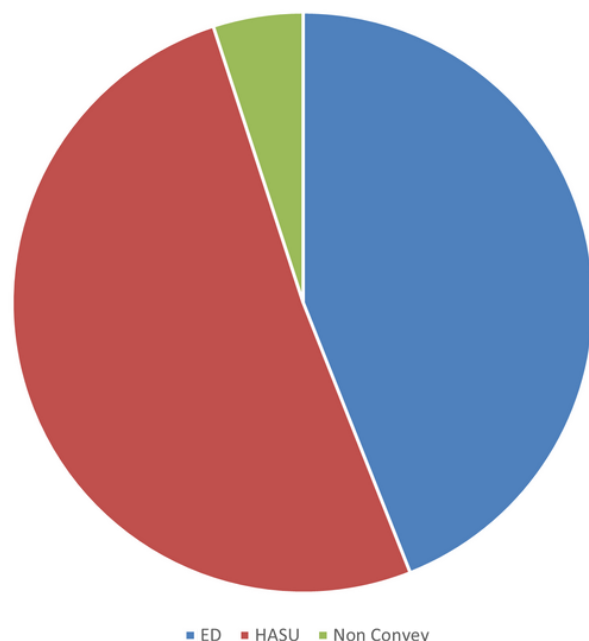
NWAFT Video Triage Patient Outcomes



In North Cambridgeshire, 79 patients have been triaged up until 30th April 2023. 43% of patients have been triaged directly through to the CT scanner. 48% of patients have been diverted away from the Acute Stroke Centre and instead conveyed to their nearest Emergency Department. 8% of patients video triaged have been managed in the community and not required conveyance to hospital.

In West Essex, 151 patients have been triaged up until 30th April 2023. 51% of patients have been triaged to a Hyper Acute Stroke Centre. 44% of patients have been diverted away from the Acute Stroke Centre and instead conveyed to their nearest Emergency Department. 5% of patients video triaged have been managed in the community and not required conveyance to hospital.

West Essex SVT Patient Outcomes



# Case Study 1

Patient: 75 year old male, ? Stroke (details pseudonymised to protect confidentiality)

PMH: Previous Subarachnoid Haemorrhage, coiled. Parkinsons disease (usually affecting right side)

History: Lifting heavy boxes around the house although not unusual for patient. Noticed after this that left hand dexterity was reduced, and experiencing numbness.

Shx: Lives alone, no carers.

Dhx: Compliant with regular medications, no recent changes.

On Examination:

DRCABC: No concerns.

FAST - No facial droop, good arm strength but complaining of numbness in hand, although states this is almost completely resolved. No change in speech. Time of onset: within last 2 hours.

No headache, no visual disturbances, able to mobilise no changes in gait.

Crew impression: ? Resolved TIA. ? MSK injury from manual handling carried out. Patient does not necessarily wish to attend ED if not required. Decided to contact Stroke Video Triage.

Stroke Video Triage: Full National Institute for Health Stroke Scale carried out and neurological assessment. Abnormality detected in left hand dexterity. Advised crew to convey under blue light conditions to nearest HASU.

Outcome: CT showed right sided ischaemic stroke. Admitted to Hyper Acute Stroke Unit.

# Case Study 2

Patient: 26 year old female, ? Stroke. Loss of vision in right eye, right sided arm and leg weakness and slurred speech (details pseudonymised to protect confidentiality)

PMH: Migraine

History: Sudden onset 2 hours ago, facial droop, peripheral vision loss, reduced power in right arm and right leg and sudden onset headache.

Shx: Lives with parents. Self caring

Dhx: No regular medications. Denies alcohol or recreational drugs.

On Examination:

DRCABC: No concerns.

FAST - Facial droop, right sided weakness and slurred speech. Time of onset: 2 hours ago.

Obs: HR 101, BP 160/90, RR 18, T 36.4, BM 5.4 GCS 15.

Crew impression: ? Stroke.

Outcome: Diverted to ED. Video triage doctor able to access previous CT and MRI as patient had previous similar presentations.

Final Diagnosis: Migraine. Video triage prevented stroke team activation, and unnecessary imaging.