

Pre-hospital video triage of suspected stroke patients: Lessons, opportunities and ambitions

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LTP ambitions

Deliver **thrombectomy** (8-10%) and **thrombolysis** (20%)

Modernise the workforce through cross-profession and cross-speciality capability models

Implementation and further development of **higher intensity care models of rehabilitation**

National support for the **scaling of technology**

Ensure stroke patients receive care of **specialist stroke units** via **networked care**

Provide a **comprehensive dataset** that meets the needs of all stakeholders

Achieved

- Established 20 **ISDNs with dedicated clinical leadership** across acute and community
- Developed and published **National Stroke Service Model** and **Integrated Community Stroke service model**
- **Rollout of video-triage** into 8 services/pathways
- Implementation of **AI digital decision support tools** into 82% of stroke services
- **Improvement in thrombectomy** activity (3%) and delivery of regional quality review meetings
- Delivery of 3 pilot sites to test new models of stroke rehab

Future ambitions

- Rollout of **higher-intensity needs-based integrated** stroke rehab via dedicated regional QI leads
- Delivery of a **vocational rehabilitation** toolkit
- Increase **thrombolysis** rates from around 20% and **thrombectomy** to 8-10%
- **Deliver video-triage** into an additional 10 systems, to drive efficiencies across the pathway
- Support systems and ISDNs to **embed the National Optimal Stroke Imaging Pathway (NOSIP)** and AI into all services.

Opportunities

Prevention becomes a more central part of stroke delivery models

Improved datasets across entire pathway

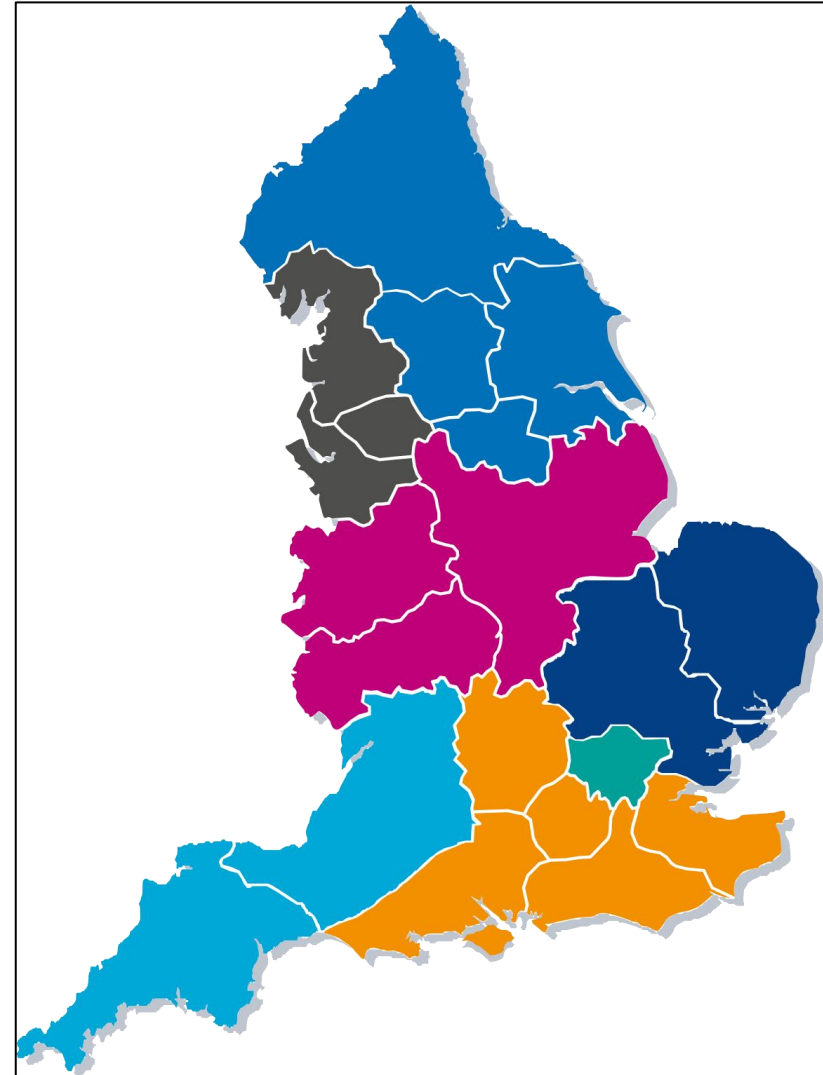
Improved **whole system and network** approaches

Greater space for **innovation** and **alternative ways** of delivering stroke care

Delivery model is through the ISDNs and regional teams

ISDNs are the key vehicles for transforming stroke care

Integrated Stroke Delivery Networks Providing improved stroke outcomes in every ICS				
Patient information and engagement is consistent throughout the single system via a patient passport				
Data and information are digital, interactive and accessible to all across the whole system				
Systems are aligned across the full pathway with strong clinical and network leadership				
Modernised and upskilled workforce are recruited in line with system need				
Prevention	Urgent care	Acute care	Rehabilitation	Long term support
Primary Care with Primary Care Networks (PCNs) Community Pharmacy	999/111 Ambulance Service Comprehensive Stroke Centres/ Acute Stroke Centres	Acute Stroke Centres	Stroke Recovery Centres ESD and community services Social care	Primary care Community services Voluntary sector Social care
Improved detection, primary and secondary prevention	Improved training and technology Increased availability of thrombectomy and stroke thrombolysis	Clear transfer pathways Seven day nursing and therapy services	Comprehensive ESD for all appropriate patients for a minimum of six weeks Seven day services	Comprehensive reahabilitation and personalised care and support for as long the person needs it
Over 10 years, thousands of premature deaths will be avoided, tens of thousands of disabilities will be prevented or lessened, and hundreds of thousands will benefit from better integrated person-centred care				



Why use video triage for suspected stroke patients?

- Not all suspected stroke patients who arrive at hospital turn out to have had a stroke
- There is an opportunity to improve the identification of stroke patients at the pre-hospital stage
 - Video triage enables stroke clinicians to 'see' the patient and make an assessment as to whether they are experiencing a stroke
 - Joint decision making between stroke clinician and ambulance crew determines most appropriate conveyancing destination:
 - HASU
 - Emergency department
 - Not conveyed
- Potential benefits:
 - Non stroke patients will be taken to 'right place first time'
 - Stroke units' capacity freed up from fewer mimics
 - Stroke units better prepared to receive and treat stroke patients
 - Ambulance service convey fewer patients

52.8% of stroke assessments finally diagnosed as stroke mimics



6,351 mimics reported **5,672** strokes reported

SSNAP | Sentinel Stroke National Audit Programme

Work to date

- RSET study evaluated use of pre-hospital video triage for suspected stroke in East Kent and North Central London. Study found:
 - Stroke PVT seen as usable, acceptable, and safe
 - >95% reached HASU within time thresholds
 - No increase in median times onset to stroke unit

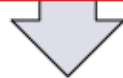
Area	HASU	Non-HASU	Not conveyed
NC London	39.1%	41.4%	19.5%
East Kent	51.1%	35.9%	13.0%

- NHS England has subsequently funded 9 pilot sites to test use of stroke PVT across 7 ambulance trusts in 2022/23:
 - Sites using different video call platforms and call taker models
 - Quantitative and qualitative data collection to inform an evaluation
 - Community of Practice for peer support and knowledge sharing

The 'ideal' Pre-hospital triage?



Mimic
53%



Home / Clinic/
Local ED

Stroke
42%



Nearest (ASC)
stroke unit

Stroke - LVO
5%



Thrombectomy
centre (CSC)



East of England Pilot

North West Anglia Foundation Trust

- 2 x Hospitals
 - Hinchingsbrooke (ED no HASU)
 - Peterborough City (ED with co-located HASU)
- 0900 – 1700 Monday to Friday
- Consultant Led
- 3 x iPads utilising FaceTime as a digital platform

East of England Ambulance Service

- Cambridge & Peterborough locality
- 331 frontline staff
- All frontline staff have personal issue iPads

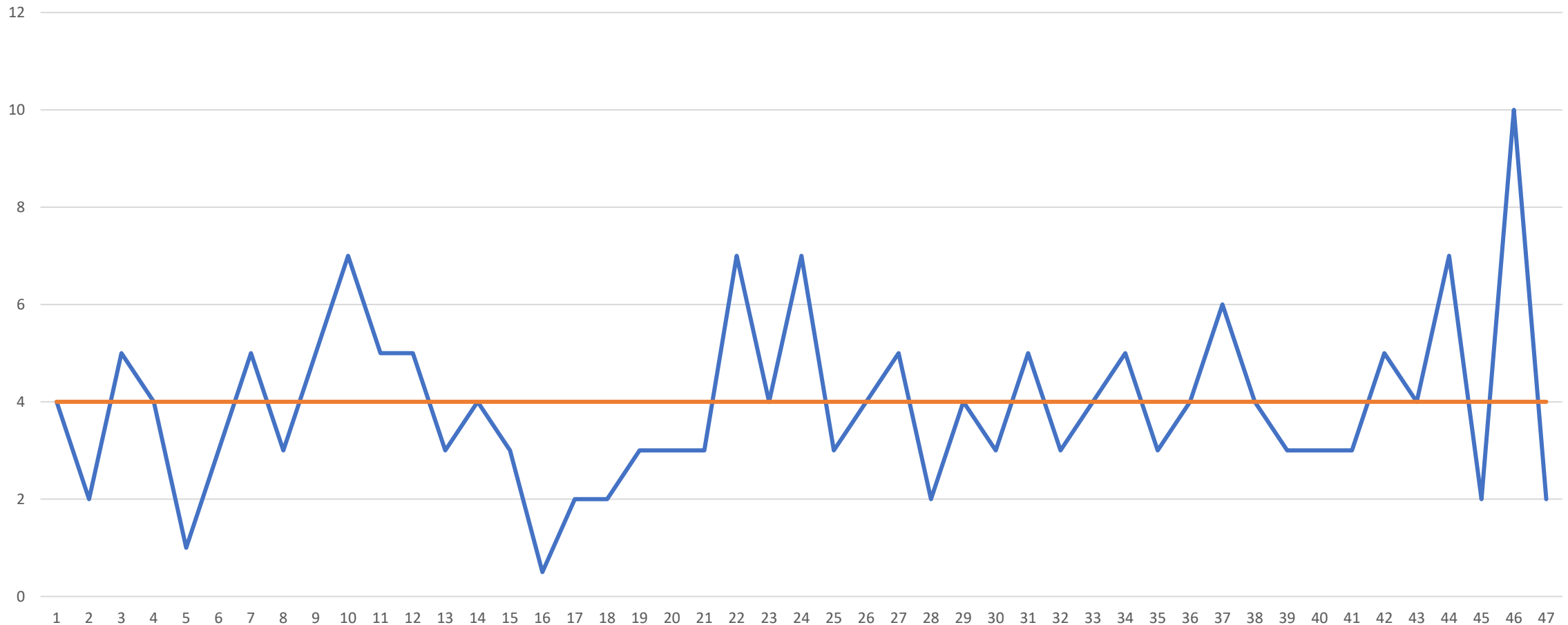


East of England Pilot

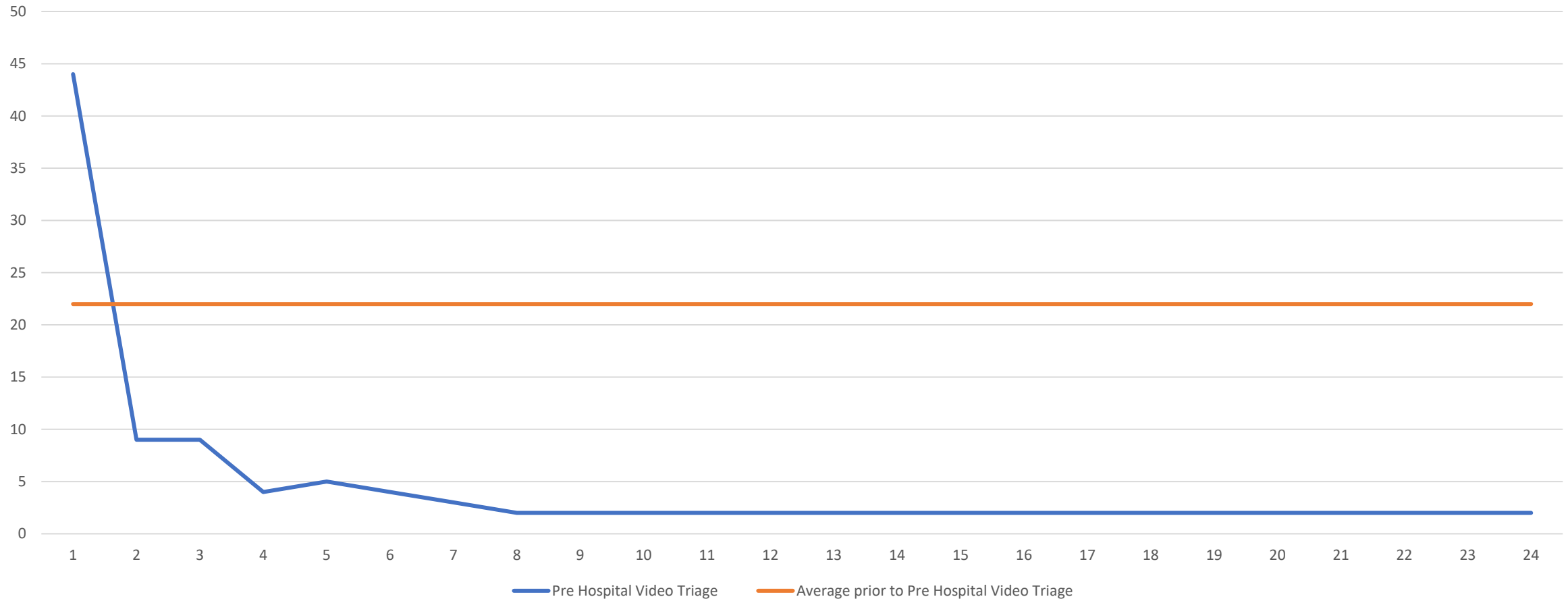


	Since Project Inception
Total Video Triages	47
Direct to CT/HASU	26 (55%)
Emergency Department	15 (32%)
TIA Pathway	2 (4%)
Non Convey	4 (9%)

Time to Decision



Door to Imaging



East of England Pilot – What's Next?

- Expanding to additional pilot sites across East of England Region.
- Looking at alternative platforms to FaceTime which may offer additional functionality.
- Looking at alternative uses for Video Triage across other specialities.



Thanks!

- For more details: england.clinicalpolicy@nhs.net