Resource impact summary report

Resource impact
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NICE has recommended that e-Stroke, RapidAI and Viz can be used in the NHS, to support review and reporting of CT brain scans for people who have had a suspected stroke, while more evidence is generated. These technologies can be used once they have Digital Technology Assessment Criteria (DTAC) approval from NHS England.

The software should only be used with healthcare professional review and centres should maintain existing scan reporting protocols to reduce the risk of incorrect results. Centres should ensure that images shared between different stroke centres can be remotely reviewed to help with decision making by healthcare professionals at a different site (see section 1.2).

More research is needed on other AI-derived software (see section 1.3) to support review and reporting of CT brain scans for people who have had a stroke. Access to the technologies listed in section 1.3 should be through company or research funding (non-core NHS funding).

Based on the Heart & Circulatory Disease Statistics 2023 (British Heart foundation), there were around 116,000 admissions to NHS hospitals in 2021/22. Treatment of stroke depends on the cause, length of time the blood supply to brain has been affected and the severity of the damage caused by the stroke. AI-derived software used alongside healthcare professional interpretation of CT brain scan images could improve image sharing, guide and speed up decision making in stroke, for example, decisions on thrombolysis and thrombectomy treatment. Existing reporting protocols (or those used before the AI-derived software was adopted in a centre) should be maintained in centres using these technologies.

Some AI technologies are already widely in use in the NHS. Access to the technologies has been available through a £21 million funding scheme set up by the government. AI stroke-diagnosis technology will be rolled out to 100% of stroke networks by the end of 2023.

Table 1: Annual licence/subscription fees

Intervention	Comprehensive stroke centre	Acute stroke centre
e-Stroke (Brainomix)	Around £30,000	Around £15,000
RapidAI (Ischemaview)	Around £20,000	Around £20,000
Viz (Viz.ai)	Around £30,000	Around £15,000

Note: The National Stroke Service Model states that a comprehensive stroke centre (CSC) covers hyper-acute, acute and inpatient rehabilitation including thrombectomy and neurosurgery. An acute stroke centre (ASC) covers hyper-acute, acute and inpatient rehabilitation, but excluding thrombectomy and neurosurgery.

There are around 158 acute stroke services, and 24 comprehensive stroke centres in England (Sentinel Stroke National Annual Programme - national report 2021).

Implementing AI software may provide the following benefits:

- Ability for units to share diagnostic images between hospitals and clinicians, to support image interpretation
- Faster interpretation of imaging (scan reviewing and reporting by a trained healthcare professional) therefore quicker clinical decisions about treatment, patient transfer and access to the correct treatment
- Improved access to both thrombolytic therapy and mechanical thrombectomy therefore reducing the risk of severe disability, limb loss or death and any associated healthcare costs
- Improving services and outcomes for stroke patients, a key objective outlined in the [NHS Long Term Plan](#) to drive expansions in life saving treatments.

Services for people who have had a stroke are commissioned by integrated care boards.

Providers are NHS hospital trusts, including adult neurosciences or neurology centres and ambulance services.