

## GIRFT report for stroke offers a blueprint for improvements to benefit patients, staff and the wider NHS

Speeding up access to imaging for people suspected of stroke and ensuring more stroke patients receive treatment to reduce the chance of life-changing disability are among the key measures outlined in a new national report from the Getting It Right First Time (GIRFT) programme.

The national report for stroke – authored by GIRFT clinical lead Dr David Hargroves and senior clinical advisor Dr Deb Lowe\* – makes a series of 29 recommendations for improvements in service delivery and patient care, based on the largest and most comprehensive specialty data set that has ever been assembled for stroke services in England, as well as meetings with 122 acute stroke teams, and 22 STP/ICS network events which brought together executive, commissioning and managerial teams across multiple organisations.

Although the key focus of the report is on inpatient care, it takes a whole pathway view where possible, also making recommendations for improvements in stroke prevention, onset-to-door times, community rehabilitation and life after stroke services.

Recommendations in the report aim to improve:

**Access to and time to thrombectomy:** Thrombectomy is a procedure used to restore blood flow to affected brain tissue. There is strong evidence that it significantly reduces the severity of disability caused by an ischaemic stroke (when a blood clot blocks the flow of blood and oxygen to the brain). While modelling suggests up to 10% of patients with stroke may be appropriate for thrombectomy, only around 1.8% of patients currently receive the treatment. GIRFT recommends measures to improve access to and time to thrombectomy intervention, including the further development of the GIRFT-initiated Thrombectomy Implementation Group (TIG) in order to deliver 24/7 thrombectomy services. The aim is for 8% of all patients with stroke to have access to thrombectomy by 2025.

**Rapid access to appropriate imaging:** Imaging is fundamental to the diagnosis and management of patients suspected of suffering a stroke, providing important information that will influence treatment. It should happen as soon as possible after the onset of symptoms. Data from the GIRFT review shows that imaging standards are often not being met, with 43% of patients not being scanned within one hour of arrival at hospital. GIRFT has worked collaboratively to develop a National Optimal Stroke Imaging Pathway (NOSIP), with the aim of reducing duplication of imaging and ensuring the right test is carried out first time, which in turn can reduce unnecessary admissions and improve rapid access to therapies such as thrombolysis and thrombectomy. While recognising that this ambitious pathway will require work and investment, the report outlines current best practice and actions that systems can take to support implementation, including the use of AI-driven decision support tools to help clinicians in interpreting stroke images.

**Equity of access to rehabilitation:** Stroke rehabilitation involves physiotherapists, occupational therapists, speech and language therapists, dieticians, orthoptists and psychologists, among others, helping patients restore or adapt to any loss of physical, psychological, cognitive, and social function following a stroke. There is strong evidence that a coordinated, multidisciplinary team approach to rehabilitation results in fewer deaths and less dependency. The GIRFT review found that some patients with stroke are not receiving the recommended level of in-hospital rehabilitation and many stroke survivors do not get access to community rehabilitation when they need it. The report recommends that ISDNs ensure there is a seven-day accessible Integrated Community Stroke Service (ICSS) to support discharge and community-based rehabilitation for everyone that could benefit.

Acute stroke care is delivered in 107 stroke units across England, each managing an average of 650 acute stroke spells per year – a total of around 70,000 patients annually in England.

The report recognises that the stroke workforce is key to providing a comprehensive and integrated service, encompassing prevention, stroke management, rehabilitation and life after stroke support. While the NHS Long Term Plan recognises the need to build staff numbers and skill mix necessary to support stroke pathways, the report recommends that regional Stroke People Plans are developed to meet the needs of the stroke workforce and improve staff experience and retention, and that the Stroke-Specific Education Framework (SSEF) – which has helped to equip and skill the stroke workforce – is further developed to ensure that it supports structured training, career pathways and development.

Measures in the report align clearly with ongoing work by NHS England and other bodies working to improve care for patients with stroke, helping to magnify the collective impact of future developments to enhance stroke care. In particular, the report builds on NHS England's [National Stroke Service Model](#), which outlines best practice stroke care across the patient pathway, to be delivered by the 20 Integrated Stroke Delivery Networks (ISDNs) now established across the country. The GIRFT report features a series of recommendations to help grow and sustain leadership and collaboration across stroke services, with ISDNs at the forefront.

Overall, the report identifies that improving the speed and effectiveness of scanning and diagnosis of stroke by adopting the National Optimal Stroke Imaging Pathway (NOSIP), with treatment provided by an appropriately skilled workforce as part of an integrated pathway, could help to reduce the average length of time patients with a stroke stay in hospital. The financial opportunity of this potential reduction in bed days is estimated to be around £70m.

### About the authors

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## Report recommendations

The report makes 29 recommendations across 11 categories:

### Recommendations to grow and sustain leadership in stroke services

1. ISDNs to ensure that they lead and engage in activities to promote leadership and culture across their networks, with a particular focus on:

- the importance of culture and leadership in successful stroke teams;
- addressing systemic biases in the current leadership of stroke teams, actively promoting both medical and non-medical leadership;
- emphasising the multidisciplinary nature of high quality stroke care and diversity of leadership;
- promoting collaboration across the stroke pathway, including diagnostics, rehabilitation, and working with the third sector; and
- development and implementation of a 'Stroke Leadership Academy'.

### Recommendations to support the implementation of ISDNs and adoption of best practice across localities

2. Review regional guidance produced from GIRFT visits, implementing recommendations to ensure local services meet NICE 2019 and RCP 2016 guidance.
3. All regions will have a fully functioning stroke networks (ISDNs) by April 2021 and must focus on establishing operational and governance best practice.

### Recommendations to support improvements to the pre-hospital stroke pathway

4. ISDNs to draw up local emergency plans, informed by the data, to reduce symptom onset-to-door times. Work with regional and national ambulance teams to produce a 5% annual reduction from baseline and improve sensitivity and specificity of pre-hospital assessments

### Recommendations to ensure rapid access to imaging

5. Implement the National Optimal Stroke Imaging Pathway, including:
  - working towards 24/7 access to imaging
  - aligning with NICE guidance for TIA
  - reducing unwarranted variation in poor access to MRI
  - improving brain imaging within one hour of arrival for all patients with stroke
  - reducing duplication of MRI and CT within 24 hours of arrival;
  - ensuring 24/7 access to CT angiogram and CT perfusion; and
  - incorporating guidance from Sir Mike Richards' diagnostic imaging review.
6. Provide infrastructure, training and technology to share images between hospitals and clinicians to support image interpretation (see also Recommendation 9 from GIRFT's Radiology National Specialty Report - All trusts must meet the RCR standards for the use of IT).

## **Recommendations to support the delivery of hyper acute and acute inpatient stroke care**

7. Services to adopt the new nomenclature for acute stroke services.
8. Consider an accreditation system for stroke services.
9. Reduce door to intervention times for all stroke subtypes.
10. Ensure access to highly specialised stroke units for patients with stroke in <4 hours and for >90% of their stay.
11. Ensure equitable and timely access to services that reduce the risk of complications following stroke, including:
  - reduce time to swallow screen, with or without speech and language team (SLT) assessment, and review relationship with the use of antibiotics in the first seven days;
  - deliver definitive feeding solutions for those patients with prolonged dysphagia;
  - avoid health inequity in access to multidisciplinary care across the days of the week;
  - reduce falls risk and subsequent harm from falls; and
  - implement stroke-specific VTE assessment and ensure treatment / intervention.

## **Recommendations to improve access to thrombectomy**

12. Improve access to and time to thrombectomy intervention. Aiming for 8% of all patients with stroke accessing thrombectomy by 2025.

## **Recommendations to strengthen primary and secondary prevention of stroke**

13. Conduct clear assessment of the health inequalities specific to geographical regions and groups.
14. ISDNs, working with ICSs and PCNs, to engage in a coordinated approach to CVD prevention.
15. ISDNs to oversee and support the implementation of pathways for secondary prevention including cryptogenic stroke and TIA management.
16. ISDNs to work with their local systems and ensure adherence to NICE guidance for TIA. Patients with suspected TIA must be assessed seven days a week with remote triage to prioritise assessment within 24 hours. Assessment must include appropriate investigations including brain imaging, carotid vessel imaging (where appropriate) and rhythm check to exclude atrial fibrillation.

## **Recommendations to support the stroke workforce**

17. Increase awareness of and delivery of the NHS People Plan – Our NHS People Promise. Use ISDN leadership and governance structures and the Stroke Specific Educational Framework (SSEF) to support the delivery a regional 'Stroke People Plan' to meet the needs of the stroke workforce and improve staff experience and retention.
18. Transform delivery of care and efficiency of workforce by incorporation of digital technology.

19. ISDNs and local providers to use NHS England and NHS Improvement's stroke bed calculator to plan bed capacity requirements in a consistent and evidence-based way.
20. Deliver a sustainable workforce for thrombectomy.
21. Further develop the SSEF with a focus on the post-acute pathway, including life after stroke, psychological models of care, voluntary sector workforce and end of life care.

### **Recommendations to support rehabilitation and life after stroke services**

22. Ensure daily MDT patient goal setting (including social care support to facilitate discharge planning). Stroke survivors and their relatives must be involved in goal-setting and discharge planning discussions.
23. All ISDNs should ensure commissioning of a needs-based 7-day accessible Integrated Community Stroke Service, appropriately staffed with stroke specialist practitioners. This ICSS should incorporate traditional elements of early supported discharge (ESD) with more generic community-based rehabilitation for the latter stages of the stroke recovery journey. Stroke rehabilitation should be accessible to all that may benefit, this should include nursing home residents and those with severe disabling stroke cared for in their own homes.
24. ISDNs should work with stroke teams to review current provision of Life after Stroke pathways. This should include access to psychological care, voluntary sector support and appropriate patient directed follow-up.

### **Recommendations to strengthen audit and review**

25. Review stroke data collection, data fields and links to other registries, reflecting feedback from acute and community teams. This will ensure units continue to receive high-quality and actionable insights from the national audit. This must include more real-time reporting and an ability for local ISDNs to interrogate data and produce their own bespoke reports based on their own priorities and challenges.
26. Formalise the ISDN assurance process for quality of SSNAP data entry and performance. There should be regular meetings between clinical and coding teams to ensure alignment with HES data and SSNAP.
27. Use PROMs and PREMs collection to understand the impact and outcomes of enhanced rehabilitation and life after stroke services.

### **Recommendations to reduce incidents that lead to litigation**

28. Reduce litigation costs by application of the GIRFT Programme's five-point plan.
29. NHS Resolution to develop its clinical coding to enable the identification of all claims that relate to stroke as either a primary or secondary factor in a claim.