Saving Brains: one year on

Save brains. Save money. Change lives.

#SavingBrains

Rebuilding lives after stroke

Stroke Association

Contents

Foreword

One year on from our Saving Brains campaign, thrombectomy rates are still unacceptable. This treatment is incredibly cost effective and good at reducing disability for stroke patients; it should be available as a routine treatment for all who need it across England. Yet still only 3.3% of patients receive it, we lag behind many other countries, and treatment rates vary hugely between London and regions like the East and North East.

I applaud the stroke and thrombectomy teams up and down the country who have worked tirelessly to improve access – their efforts are having a real impact on patients. But this report should serve as a rallying cry for the wider system, to recognise the 'size of the prize' and put its weight behind efforts to increase thrombectomy rates far more quickly. ICSs have a core responsibility to address inequalities in outcomes and access, and should prioritise tackling the stark and unacceptable variation in thrombectomy as a priority. Otherwise, at the current rate, over 48,000 more patients will miss out before 2030 which will have devastating consequences on so many lives.

Juliet Bouverie OBE
Chief Executive
Stroke Association

"After the thrombectomy the doctors told Mum, 'You have your daughter back in her head.' It makes me feel sad and angry that other people are missing out on this! Something needs to be done. We need to campaign and get the powers that be to listen to us."
Charlotte, stroke survivor

"I was told I was a candidate for thrombectomy but couldn't have one because the thrombectomy service didn't run at the weekend. I felt I'd had my hopes dashed."
Phil, stroke survivor and campaigner

"In other European countries, if you need a thrombectomy, you get a thrombectomy, it's a simple as that. Here in the UK, it's a postcode lottery. I got lucky and it absolutely shouldn't be a question of luck, not when the difference between treatment and non-treatment is so stark."
Peter, stroke survivor and campaigner

Introduction

Stroke strikes every five minutes. It's a leading cause of death and disability in the UK. Thrombectomy, a game-changing acute treatment for stroke, changes lives in an instant.

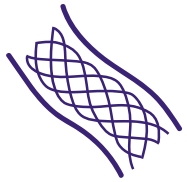
It significantly reduces the chance of disabilities like paralysis, visual impairment and communication difficulties. It's also extremely cost effective and could save the health and care system £73 million each year.[1] **Thrombectomy saves brains, saves money and changes lives.**

Our Saving Brains **report** in summer 2022 showed that thrombectomy availability depends on where and when you have a stroke.[2] Since then, stroke networks have been working determinedly to increase provision across England. Their efforts have resulted in more thrombectomy centres with longer opening hours and, crucially, more patients having access to this life changing treatment. And rates are gradually increasing. Currently 3.3% of stroke patients in England are treated with thrombectomy (up from 2.8% in 2022).[3]

However, this falls way short of the original Long Term Plan target of 10% by 2022. Nearly two thirds of patients are still missing out on this treatment - 6,903 patients in the last year alone.[4] If the current rate continues, 48,321 people will miss out by 2029/30. This is totally unacceptable. Thrombectomy treatment should be routinely available to all 10% of stroke patients who need it. Progress simply isn't happening at the pace we need.

There are persistent barriers to 24/7 access, including a lack of staff, regional buy-in, referrals from other sites and access to capital funding. Whether you can have a thrombectomy still depends on where you live and when you have your stroke.

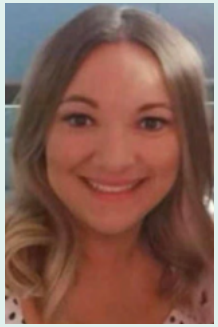
This report explores the progress made since our Saving Brains campaign launched, and the next steps needed to increase treatment rates. The ambition remains the same - we must maintain momentum and urgently secure a 24/7 thrombectomy service for every stroke patient who needs it, and reduce the significant variations in access and outcomes.



Currently 3.3% of stroke patients in England are treated with thrombectomy (up from 2.8% in 2022).

Nearly two thirds of patients are still missing out on this treatment - 6,903 patients in the last year alone.

Charlotte Evans had her stroke on Boxing Day in 2021. Thankfully, she was able to have a thrombectomy procedure. Charlotte says she is one of the lucky ones and knows how different her recovery might have been without it...



Charlotte, 38, was at home in Stoke-on-Trent when she collapsed on the kitchen floor. Luckily her partner Sean found her and was able to call an ambulance and alert her mum too. While Charlotte was awake and conscious at the time, she doesn't remember attending hospital or the hours after being admitted. Thankfully and despite the risks, Sean and Charlotte's mum were able to make the decision to act and have the thrombectomy.

Charlotte said: "I personally can't remember being in hospital or even the following week in recovery. I was awake and conscious, and mum said I kept saying, 'This is really bad, isn't it?!'

The procedure was successful, and Charlotte said that she felt much better, although she still had no movement in her right-hand side. Her time in hospital was spent learning to walk again, resting and trying to feel like herself. Though her recovery was ongoing after leaving hospital, Charlotte was still able to attend a friend's wedding and a baby shower.

Charlotte said: "I really didn't think I would have the courage to go to the wedding. I found it so hard but I'm glad I went. I then went to a baby shower, and everyone knew what had happened to me. It was hard and emotional, but it was all progress."

Despite three months off work, Charlotte puts her recovery down to the thrombectomy and her determination to feel like herself again. She is now passionate about making sure others don't miss out on the procedure just because of where they live and what day of the week it is.

Charlotte said: "I could have ended up not being able to walk, my speech might not have come back as well as it has. My overall ability to move might have been taken away. After the thrombectomy the doctors told Mum, 'You have your daughter back in her head.' It makes me feel sad and angry that other people are missing out on this! Something needs to be done. We need to campaign and get the powers that be to listen to us."

"Thrombectomy has been a revelation for suitable stroke patients and the teams looking after them. It can often dramatically improve a patient's recovery and reduce ongoing disability significantly. The challenge is that thrombectomy requires a large well-trained team and the required infrastructure to be available at very short notice, to make sure suitable patients can be treated quickly. If we can make this happen, we could make a huge dent in the condition which is responsible for a large proportion of adult disability in the UK."

Dr Don Sims, Consultant Stroke Physician and Clinical Lead for Stroke Medicine, University Hospitals Birmingham NHS Foundation Trust

"Over the last year, UK Neurointerventional Group (UKNG) members have made significant progress improving access to thrombectomy services – 68% of centres have extended hours provision and 35% are providing thrombectomy 24/7. This has resulted in a substantial increase in the number of procedures being performed. The rate of eligible patients now receiving this life changing treatment in England has increased by 400% since 2018. UKNG pledges to continue to work with all invested partners to overcome barriers, improve thrombectomy services and help deliver better outcomes for stroke patients."

UK Neurointerventional Group

"The East of England Integrated Stroke Delivery Networks, in collaboration with colleagues across the region and from London, have seen a significant improvement in thrombectomy rates for our region over the last 12 months. Thrombectomy provision within the ISDNs has risen, with growth at one of our centres and we continue to work closely with our ICB colleagues to ensure that mechanical thrombectomy remains a regional priority. The National Optimal Stroke Imaging Pathway (NOSIP) has provided a further focus on Stroke Imaging across the ISDNs which will continue to drive further improvement."

Jo Clayden, Senior Programme Manager, East of England ISDNs

What are thrombectomy rates across England now?

Treatment rates have slowly improved over the last year, so now 3.3% of stroke patients in England receive a thrombectomy.[5] Despite the growth from 2.8% in 2022, this is still far off the 10% needed. As a result, 6,903 patients missed out last year (2021/2022) across England, Wales, and Northern Ireland.[6]

At the current rate, 48,321 people will miss out by 2029/30.[7] There is also widespread regional variation, creating an unacceptable postcode lottery.

Nearly 10% of stroke patients receive a thrombectomy in London, compared to only 0-3%* in other areas.[8]

Over the last year, more of the 24 thrombectomy centres across England have increased their operating hours, enabling more patients to access thrombectomy. Encouragingly, centres including Manchester have become 24/7, showing commitment to consistent access for their patients. And many centres have plans in place to increase operating hours. **However, in some areas of England there's still no thrombectomy service available at the weekend, or outside of the working day. This is unacceptable for a time-sensitive treatment that should be routinely given to all patients who need it.**

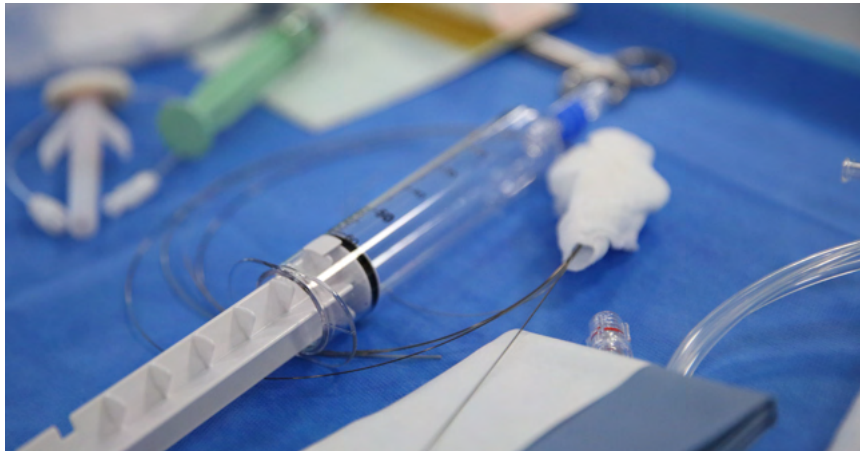
Salford Royal Hospital moves to 24/7 access

Dr Hannah Stockley, Consultant Interventional Neuroradiologist,
Manchester Centre for Clinical Neurosciences, Salford Royal Hospital

In March 2023, we celebrated the first anniversary of the thrombectomy service extending to provide this life changing treatment 24/7 for eligible patients within Greater Manchester. The number of thrombectomies performed by our service more than doubled in 2022/23 compared to the previous 12 months. And it's clear to see the impact of extending hours because approximately half of all cases were performed within the new hours of treatment provision.

The 24/7 service has also benefited patients presenting with haemorrhagic strokes as we have been able to treat some of these patients sooner than in the past. However, as in other neuroscience centres, we only have one specialist angiography theatre and if a time-critical thrombectomy case is referred then we must prioritise. So, to ensure haemorrhagic patients don't suffer delayed treatment during normal weekday hours, we need NHS England and hospital Trusts across the country to improve investment in second bi-plane angiography suites and the staff associated with them.

It requires a team of specialist nurses and radiographers to assist in performing a thrombectomy, with all individuals playing an important role and it was vital to have them on board with expanding our service. So, I asked some of our team what had



inspired them to join interventional radiology and how they had found the service extension:

"My grandmother had a stroke when I was a child, so I've always wanted to somehow be involved in improving stroke care. As a CT radiographer I acquire the scans for patients who need clot busting drugs, and more recently thrombectomy procedures. So, when the opportunity came to join the IR team as a Clinical Specialist Radiographer and be involved in this life saving treatment, I couldn't think of a better way to honour my grandmother."
Brittanie Lark, Clinical Specialist Radiographer

"I can't deny that the extension to 24/7 service has been tough at times. We have a small group of specialist staff so the on call can be onerous. But the flipside is we've made a significant difference to the outcomes of many more people than we used to be able to help. Stroke can affect anyone, people of all ages, so it's satisfying to know that people aren't missing out on such an effective treatment anymore."
Jen Osman, Clinical Specialist Radiographer

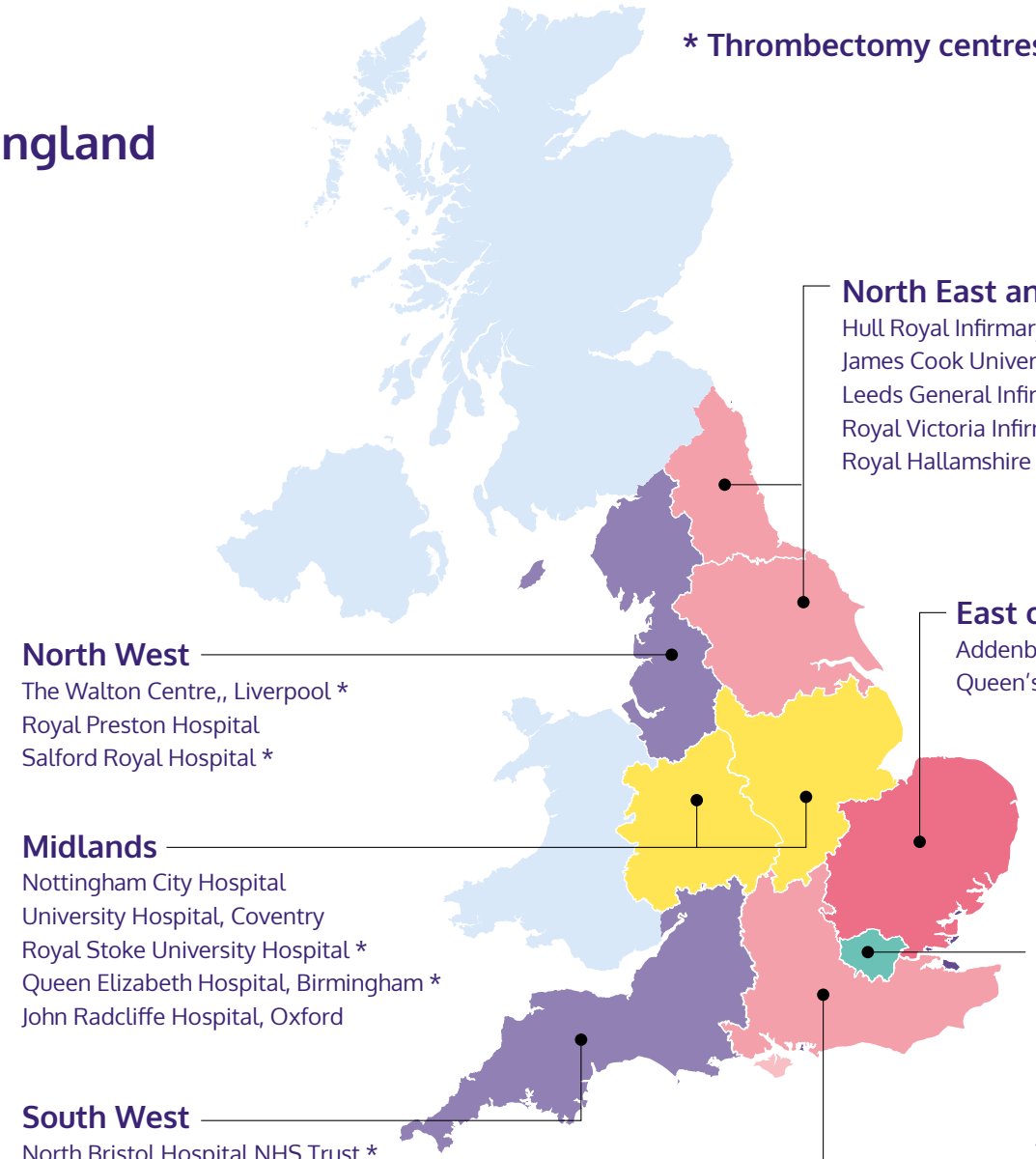
"I was fascinated by interventional radiology nursing from my first experience of it as a nursing student and, for me, there was no other option than to join the team when I graduated. It's exhilarating when we perform a thrombectomy and the patient starts to improve as soon as they wake up from anaesthetic – makes my day."
Qas Shah, Interventional Radiology Staff Nurse

"I love being part of the IR team at Salford Royal. We can make such a big difference to the lives of stroke patients. It makes me really happy when we come in overnight to do a case and then the next day find out that the patient is making good progress. Like an older patient coming in with complete weakness on one side and then being able to walk after a few days."
Aswathy Shaji, Interventional Radiology Staff Nurse

Thrombectomy rates across England (SSNAP data, Oct-Dec 2022)

Locality	Treatment rate
East of England	0.39%
London	9.84%
Midlands	2.74%
North East and Yorkshire	1.93%
North West	3.59%
South East	2.58%
South West	4.27%

* Thrombectomy centres that operate 24/7



North East and Yorkshire
Hull Royal Infirmary
James Cook University Hospital, Middlesbrough
Leeds General Infirmary
Royal Victoria Infirmary, Newcastle
Royal Hallamshire Hospital, Sheffield

East of England
Addenbrooke's Hospital, Cambridge
Queen's Hospital, Romford

North West
The Walton Centre,, Liverpool *
Royal Preston Hospital
Salford Royal Hospital *

Midlands
Nottingham City Hospital
University Hospital, Coventry
Royal Stoke University Hospital *
Queen Elizabeth Hospital, Birmingham *
John Radcliffe Hospital, Oxford

London
Charing Cross Hospital *
King's College Hospital *
St George's Hospital *
National Hospital for Neurology and Neurosurgery
The Royal London Hospital *

South West
North Bristol Hospital NHS Trust *
Derriford Hospital, Plymouth

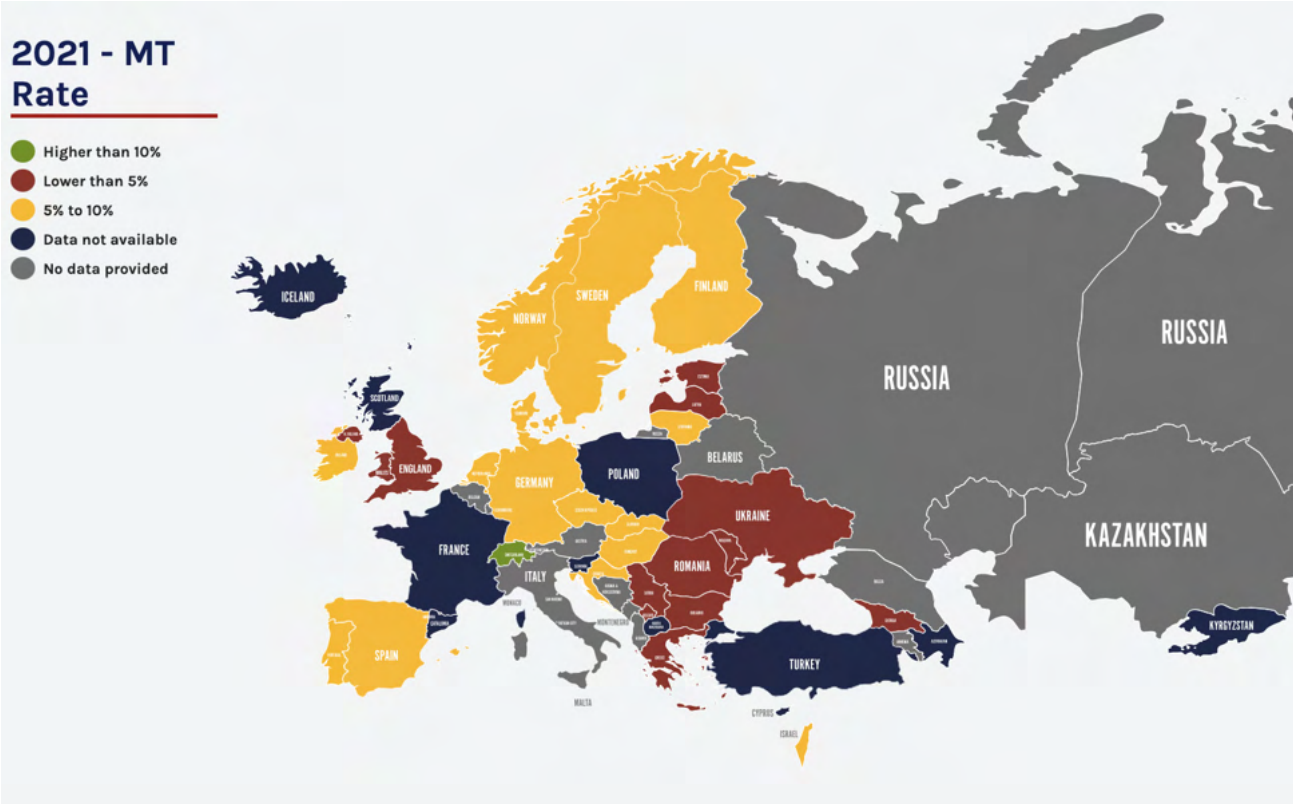
South East
Royal Sussex County Hospital, Brighton
Southampton General Hospital

How does England compare internationally?

England performs poorly and lags far behind other developed health systems internationally, with thrombectomy rates often double in other developed nations.[9] Germany, Ireland, Sweden and the USA, amongst others, continue to rank much higher in terms of thrombectomy access.

The World Health Organisation (WHO) has even included thrombectomy in its recommended 'best buys' recently, in recognition of its cost-effectiveness and overall effectiveness as an intervention.[10]

"Most countries in Northern and Central Europe now provide thrombectomy to 5-10% of ischemic stroke patients and perform the procedure within 100 minutes of patients arriving in hospital. England's thrombectomy rates are well below the European median and with far longer delays to treatment. This represents clear underuse of a highly evidence-based intervention that can provide many stroke patients with a much larger chance of an independent life."
Professor Hanne Christensen,
Chair, Stroke Action Plan for Europe



Source: **Stroke Action Plan for Europe** [11]

What has improved and what is needed next?

Commitment to thrombectomy rollout

Rolling out thrombectomy fully would provide huge benefits to both patients and the health and care system, reducing disability and therefore demand on rehabilitation and community services.

In the last year, NHS England has maintained its Long Term Plan commitment to treat all suitable stroke patients (10%) with thrombectomy, but revised the timescale from 2022 to 2029. Yet, England's thrombectomy rates continue to lag behind other developed countries, despite its strong evidence, policy commitments, cost effectiveness and improved patient outcomes.

Stroke as a condition does not receive the level of government and regional attention necessary to reverse the recent deterioration in standards of care. Stroke can be both treatable and recoverable. **It's vital we see continued commitment from all relevant decision-makers across England to improve thrombectomy rates over the next decade, turning policy commitments into a reality.**

What has improved?

- NHS England will soon publish its Thrombectomy Delivery in England report, outlining steps local systems should take to optimise treatment delivery.
- NHS England has committed to make some funding available, with a capital settlement from 2022-2025, to support the expansion of thrombectomy.
- The Department of Health and Social Care has included cardiovascular disease (including stroke) in the scope of its upcoming Major Conditions Strategy.

What is needed next?

- The Department of Health and Social Care must include thrombectomy rollout and the need to address unwarranted variation and inequity in access within the Major Conditions Strategy.
- NHS England must support systems to implement the Thrombectomy Delivery in England recommendations and incorporate new evidence for the number of people suitable for thrombectomy into thrombectomy planning.

Priority and leadership of thrombectomy locally

Thrombectomy is 100% cost effective - the NHS saves £47,000 per patient over 5 years.[12] It also has enormous potential to help Integrated Care Systems (ICSs) meet the system ambitions set out in 2023/24 NHS Planning Guidance. It can help to recover core services and productivity, reduce demand on rehabilitation services, deliver the Long Term Plan and transform the NHS for the future.

But to rollout successfully, thrombectomy requires more buy in from regional and ICS leaders, who must recognise the 'size of the prize'. This is particularly important as funding for thrombectomy will soon be allocated to ICSs on a population basis and 'associated capital required to undertake any enabling works, such as building and estates redesign should be secured locally.' [13]

Thrombectomy rates can also greatly increase when referring sites and thrombectomy centres work together in a networked approach to increase the number of referrals and optimise the pathway. Here, Integrated Stroke Delivery Networks (ISDNs) provide real value in enabling inter-hospital referrals and collaboration across ICS boundaries, as they cover multiple ICSs.

What has improved?

- Nationally, treatment rates have risen from 2.8% to 3.3% over the last year. In some areas, thrombectomy centres have successfully increased their rates by focussing on increasing referrals from surrounding hospitals.
- At least 9 thrombectomy centres now run 24/7, and many centres have plans to lengthen their operating hours.

What is needed next?

- Integrated Care Boards (ICBs) must work together to support their ISDNs to achieve 24/7 access to thrombectomy, acting on the Thrombectomy Delivery in England recommendations to remove the current postcode lottery.
- NHS England must commit to multi-year funding for ISDNs, to support them with their key priorities, including thrombectomy rollout.
- ICSs must ensure thrombectomy funding is ring-fenced and prioritise any additional thrombectomy capital funding needed for enabling works., due to its life-changing impact and cost-effectiveness.
- Referring sites (Acute Stroke Centres) and thrombectomy centres (Comprehensive Stroke Centres) must work together in a networked approach, to help increase treatment referral rates for patients.

Addressing urgent and emergency care challenges

Thrombectomy relies on efficient and timely ambulance responses, including rapid inter-hospital transfers where necessary to get to a thrombectomy centre. Quick access to brain imaging is also crucial in the initial stages, to determine if thrombectomy is suitable. However, currently 43% of stroke patients are not scanned within one hour of reaching hospital.[14]

Access to stroke unit care for all patients has been impacted by recent unprecedented urgent and emergency care pressures, as well as patient flow through hospital. This also impacts thrombectomy viability; delays at this stage can cause patients to miss out on the treatment altogether.

We need to see continued concerted efforts to address the challenges in urgent and emergency care, allowing more thrombectomies to take place in the time window. Helpful recommendations in the Getting It Right First Time (GIRFT) national report for stroke, National Optimal Stroke Imaging Pathway (NOSIP) and Thrombectomy Delivery in England report outline the optimal pre-hospital and acute pathways for thrombectomy.

What has improved?

- NHS England published its Urgent and Emergency Care (UEC) Recovery Plan, a crucial step to restoring patient flow through and out of hospitals. It is now supporting ICSs to create plans to deliver the ambitions, such as a 30-minute target response time for Category 2 incidents.
- In recent months, ambulance response times have improved and are now averaging 32 minutes. However, this has not been consistent over the last year and pressures on the ambulance service are well known.

What is needed next?

- NHS England and ICSs must successfully deliver on the UEC Recovery Plan through concerted efforts ahead of next winter.
- Locally, ambulances services and ISDNs should agree and implement standard procedures to prioritise stroke patients, and those suitable for thrombectomy.
- Stroke services and ISDNs should implement the NOSIP, including ensuring 24/7 access to both CT angiogram and CT perfusion, to improve the scanning and diagnosis of suspected stroke.

Category 2 segmentation pilots

- West Midlands Ambulance Service (WMAS) and London Ambulance Service (LAS) took part in a trial segmenting Category 2 calls into those that needed immediate ambulance dispatch, like stroke, and those that didn't. Patients with lower priority emergencies received call backs from doctors and nurses.

- In the trials nearly half of the patients that received call backs were then referred to their GP or pharmacist. This meant ambulance resources were reserved and prioritised for stroke and other more immediate medical emergencies.

- We would like to see more ambulance trusts trialling similar ways of working to make the best use of available resources at a time when the urgent and emergency system is under sustained pressure.

Tackling the workforce shortages

Thrombectomy requires a multidisciplinary workforce, but chronic staff shortages across the stroke pathway create a significant barrier to treatment expansion.

For example, **over half** (52%) of stroke unita across England, Wales and Northern Ireland had unfilled stroke consultant positions in 2021, and **just 24% of acute stroke teams in England** met staffing requirement for the minimum number of nurses on duty at weekends.[15] Distribution of the workforce remains a challenge too, with one third of those who can perform thrombectomy **based in London**. [16]

This is putting patient safety, staff wellbeing and quality of care at risk. We urgently need to see the UK Government address workforce shortages across the whole stroke pathway. Ultimately, 24/7 thrombectomy provision will not be achievable if we do not have a sustainable, highly skilled, and supported workforce to deliver these services.

"The successful recent expansion of neurointerventional training posts will ensure the continued growth of safe, effective thrombectomy provision, with most UK neuroscience centres planning to extend their services during the next 12 months. Whilst this is encouraging, our capacity to deliver sustainable thrombectomy service improvements is critically dependent on investment and development of multiple clinical services that support the entire stroke pathway."
Dr Rob Lenthall (Chair) and Dr Hannah Stockley (Hon Secretary), UK Neurointerventional Group (UKNG)

What has improved?

- The General Medical Council (GMC) has approved a new 'thrombectomy credential', allowing a wider range of clinicians to train to perform the procedure.
- The number of specialists who can perform the treatment, Interventional Neuroradiologists (INRs), is also increasing. There are now around 115, with 40 in training, so we should reach the 150 currently needed within two years.[17]

What is needed next?

- The UK Government must urgently publish its long-promised NHS Long Term Workforce Plan, complete with numbers and funding, to address the chronic workforce challenges holding back thrombectomy progress.
- The GMC and NHS England must oversee successful roll out of the 'thrombectomy credential'. This should build a sustainable pipeline of clinicians to perform thrombectomy and address the **current unequal distribution of INRs** across England.

Innovations and stroke research

Innovations, such as AI decision-support tools and use of video-triage to connect paramedics and hospital-based stroke specialists, can help accelerate access to treatments like thrombectomy. Stroke research also has huge potential to increase treatment rates, by helping to determine who is suitable for thrombectomy or speeding up the pathway.

For example, the GHoSt research study is looking into developing a lateral flow test to detect stroke, which may help to quicken stroke detection times if successful.[18]

It's important that we maximise the possibilities of research and innovation to drive up thrombectomy rates, continuing the momentum we have seen in recent years.

"Ambulance services and prehospital clinicians are keen to work with stroke services to help people get rapid access to thrombectomy. We need evidence about how to most effectively identify potential thrombectomy patients, the best pathways into regional thrombectomy centres and how we support transferring and repatriating patients. Current research, such as the OPTIMIST trial, will help provide this evidence."
Graham McClelland, Paramedic Research Fellow, North East Ambulance Service

What has improved?

- A newly updated **National Clinical Guideline for Stroke** recommends expanding the time window for thrombectomy and for patients to be considered within 12 hours and up to 24 hours of onset.[19] Excitingly, this could significantly increase the number of people eligible for thrombectomy.
- 81% of stroke units are now using AI-powered imaging software, with image sharing capability that can support clinicians to make fast and efficient imaging decisions. The remaining units have approved plans to adopt this.The remaining units have approved plans to adopt this.
- At the Stroke Association, we're funding a trial into how frailty affects a patient's response to thrombectomy. This will help to determine whether thrombectomy is suitable for frail people.[20]

What is needed next?

- Research must be undertaken to determine exactly how many more stroke patients are suitable for thrombectomy as per the new National Clinical Guideline, further strengthening the need for universal rollout.
- Stroke and thrombectomy teams should work towards implementing the updated National Clinical Guideline criteria for thrombectomy.
- Well-evidenced innovations such as AI imaging software and video triage in ambulances should be universally adopted, to speed up and maximise the benefits of thrombectomy.

Saving Brains across the UK

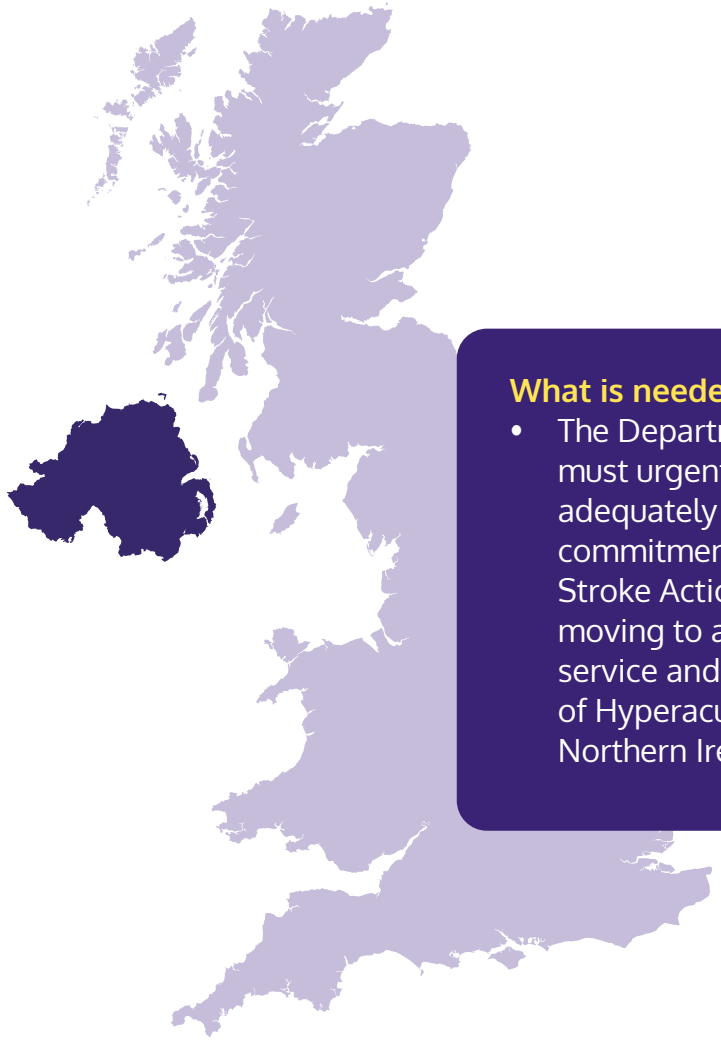
Increasing access to thrombectomy across the whole of the UK is vital. Scotland, Wales and Northern Ireland are at different stages in their roll out of 24/7 thrombectomy services and have different treatment rates - ranging from 0.4% in Wales to 7.3% in Northern Ireland.

Northern Ireland

Thrombectomy is provided at the regional centre in the Royal Victoria Hospital in Belfast. Over recent years, the service has expanded to be available 7 days a week (8am-5pm) and Northern Ireland now has the highest thrombectomy rate in the UK at 7.28%.

The Department of Health's 2022 Stroke Action Plan committed to becoming a 24/7 service by the end of 2024. The Belfast Trust has recently developed a business case setting out the requirements, including workforce and funding, to enable 24/7 access to thrombectomy. However, the Department of Health has warned that achieving the 2024 timescale will be challenging given Northern Ireland's current budgetary position.

There has also been limited progress with other commitments in the Stroke Action Plan, including the wider transformation of stroke services and development of a model of Hyperacute Stroke Care for Northern Ireland. Efficient and properly organised 24/7 hyperacute stroke services are essential for speedy diagnosis and referral to the regional thrombectomy centre for suitable patients.



What is needed next?

- The Department of Health must urgently progress and adequately resource the commitments made in the Stroke Action Plan, including moving to a 24/7 thrombectomy service and developing a model of Hyperacute Stroke Care for Northern Ireland.

Wales

Around 500 patients are suitable for thrombectomy in Wales (~10% of stroke patients), but currently only 0.4% receive the treatment. This is unacceptable and is causing unnecessary disability. We must urgently ensure that no one in Wales misses out on this life-changing treatment.

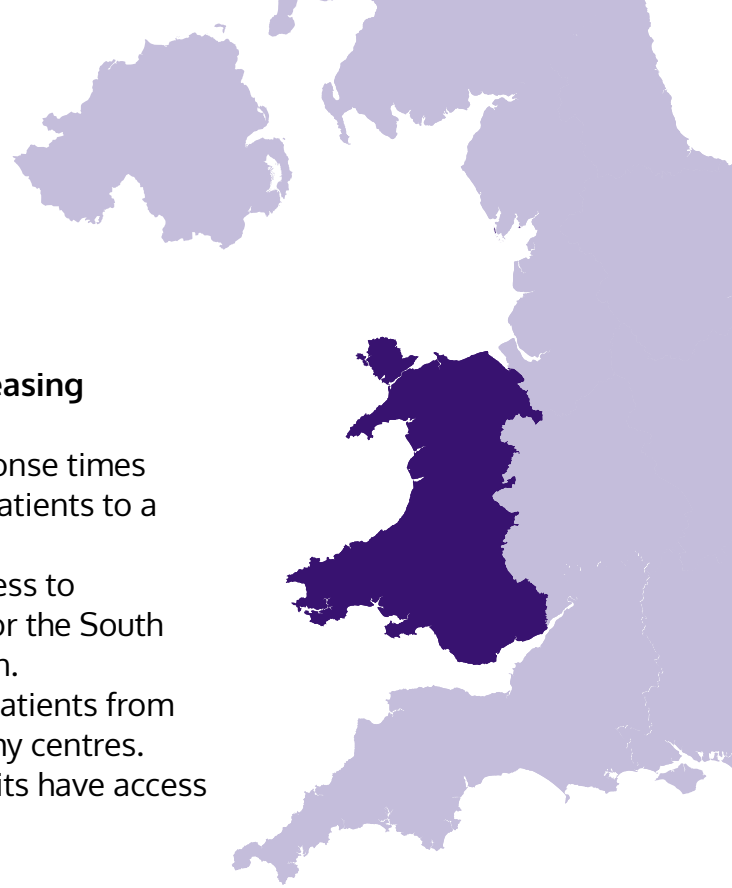
The Welsh Health Specialised Services Committee commissions thrombectomy on behalf of the seven Health Boards in Wales.

Improvements are ongoing to enable access, including:

- All inter-hospital thrombectomy transfers are now a red-call priority.
- Designated hospitals in South Wales access a platform to transfer images to English centres.
- AI technology will be fully implemented in all Health Boards by the end of 2023.
- The National Stroke Programme Board is collaborating with Welsh Ambulance Services Trust to trial a pre-hospital triage system for stroke patients to be transferred quicker to their nearest centre that delivers thrombectomy.
- All South Wales centres are compliant with two pathway standards:
  - CT and CTA scanning are done in tandem in referring hospitals
  - Superstat reporting is turned around in 30 minutes.

Challenges to increasing access include:

- Ambulance response times and transfer of patients to a stroke unit.
- Lack of 24/7 access to thrombectomy for the South Wales population.
- Repatriation of patients from the thrombectomy centres.
- Not all stroke units have access to CT profusion.



What is needed next?

- We must urgently make progress with 24/7 access to thrombectomy, to stop patients missing out. As the transformation of stroke services work across Wales develops over the coming years, thrombectomy must be delivered to ensure that everyone who is eligible for thrombectomy receives it.

Scotland

The Scottish Government published a five year Stroke Improvement Plan 2023 in June 2023, with two thrombectomy commitments:

1. Work with the three thrombectomy hub regions (North, East, West) to maximise access to thrombectomy, driving expansion of hours of service and geographical access aiming for a national round-the-clock thrombectomy service.
2. Publish a detailed plan for further development of the national thrombectomy service, with a focus on increasing equity of access across all regions, in the second half of 2023.

We welcome these commitments and look forward expectantly to the 'detailed plan for further development of the national thrombectomy service' in the next few months.

We remain extremely concerned at lack of progress at senior management level in some Health Boards on this extraordinary treatment. Patients who could benefit from thrombectomy continue to miss out on the opportunity to live a life free from disability.

Stroke does not receive the attention its scale, impact on lives, and costs to our health and social care systems merit. Health Boards need to re-prioritise stroke. We look to senior management teams in every Health Board to take action. We look to the Minister for Public Health and Women's Health, who is responsible for all stroke care, to lead from the front.

What is needed next?

- The Scottish Government and Health Boards must make concerted efforts to establish a national 8am-8pm thrombectomy service by March 2024.
- Senior management teams in Health Boards must accept that thrombectomy patient outcomes significantly outperform many other routinely available treatments and re-prioritise patient pathways: open up access at hubs; enable and support transfers from spokes to hubs and repatriation.
- The Scottish Government must publish a detailed, unambiguous plan in 2023 for how a national 24/7 service will be delivered, and by when.

Endnotes

1. European Stroke Journal, Estimating the number of UK stroke patients eligible for endovascular thrombectomy, **http://journals.sagepub. com/doi/abs/10.1177/2396987317733343**
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JN 2324-031