



Greater Manchester  
Neurorehabilitation & Integrated  
Stroke Delivery Network

# ANNUAL REPORT

## 2024-25

PUBLISHED JULY 2025



*The stroke garden at Stepping Hill Hospital, produced with kind permission of the team*

# 1. Foreword



**Dr Shivakumar Krishnamoorthy**

Network Clinical Director

Over the past year, our work has been both deeply rewarding and impactful, culminating in the celebration of a significant milestone – 10 years since the networks (as they were then) first became operational. This anniversary marks a decade of innovation, collaboration, and unwavering commitment to improving care for stroke and neurorehabilitation patients across the region. Despite the increasing financial challenges, we have remained focused on implementing low-

or no-cost changes that deliver maximum benefit to patients. This value-driven approach has enabled us to continue making real, tangible improvements in care without compromising quality.

Our pioneering approach in community with our models has been recognised by NHS England – a testament to the collective vision and dedication of our teams. Our collaborations are yielding results including the successful conclusion of the first phase of a pathway development initiative with the Motor Neurone Disease (MND) Association and the launch a new Neurogenic Bladder and Bowel Service funded by Coloplast – the first of its kind in the country.

Our stroke care goes from strength to strength, with our pre-hospital pathway now adopted across the North West and more patients now presenting within critical intervention time windows. We continue to outperform national averages across many key clinical indicators and have made great strides in expanding our diagnostic capability which has broadened access to thrombolysis and mechanical thrombectomy.

At our heart is the voice of lived experience. Our dynamic Patient and Carer Group is now an integral part of our project planning and delivery and is more diverse and resilient than ever. Our close collaboration with the voluntary sector continues to be essential in delivering truly holistic, person-centred care pathways.

Looking ahead, we recognise the challenges – but also the exciting opportunities – presented by the NHS's newly published 10-year plan. Guided by Lord Darzi's three "left shift" principles we will align our priorities to both national directives and regional strategies. My deepest thanks to my colleagues across the network and all our partners for their unwavering support. Together, we have made remarkable progress – and together, we will continue to deliver high-quality, patient-focused care across Greater Manchester.



**Mike Carpenter**

Co-Chair Patient & Carer Group

In the last 12 months we have truly demonstrated the value of involving patients and carers – not just locally in Greater Manchester - but by setting the example outward to the rest of the UK. We were blessed to have Abi Bissett as our involvement coordinator who made an enormous impact

and really helped gel together the previously separate neuro and stroke groups. Abi left behind brilliant legacies of a comprehensive toolkit and step change report, as well as formalising our terms of reference and improving ways of working. We have also had tangible progress in many projects, including MND pathway improvements and now working similarly in the Multiple Sclerosis (MS) space – with much more great progress to come in 2025.



**Nick Davis**

Co-Chair Patient & Carer Group

Our meetings have covered a wide range of matters such as medicines, splinting and discharge pathways as well as support for carers and families. To give one example in more detail for the latter: the variation across Greater Manchester, the fear of losing identity,














emotional effects and difficulties of financial decision making. We also discussed ways to help such as activity groups, respite for carers, vocational fears for carers, strengthen confidence, and referrals or joining / collaborations with NHS-adult social care teams. I feel that we are really influencing the work of the network.





## 2. Reflections on last year

### 2.1 Highlights and impacts

	<b>Influencing NHS England policy for stroke and neurorehabilitation services</b>
	<b>Network website has been viewed 30,473 times by 6,557 users</b>
	<b>Extension of ambulance pre-alert window has reduced time to scan for stroke patients eligible for intervention by 21-35%</b>
	<b>Greater access to advanced imaging has identified more candidates for intervention whilst excluding stroke mimics</b>
	<b>New online referral system has reduced telephone calls by 67% and inappropriate transfers and admissions by 81% at Salford Royal HASU</b>
	<b>Comprehensive audit of the National Clinical Guideline for Stroke by all inpatient and community teams</b>
	<b>'A' rated care provided by all HASUs with 3/5 DSCs rated 'A' or 'B' (SSNAP)</b>
	<b>Our stroke units outperform nationally in most indicators of care - HASUs scan patients twice as quickly on arrival</b>
	<b>Launch of regional Neurogenic Bladder &amp; Bowel service – first of its kind in the country</b>
	<b>Toolkits published to support service improvement in FND, MND and spasticity</b>
	<b>&gt;80 clinicians attended ACT training to enhance emotional wellbeing support</b>
	<b>Comprehensive training including 2 webinars and 8 in person events with our YouTube training videos viewed 8,242 times for &gt;905 hours</b>
	<b>Step change in patient and carer involvement including increased diversity in the network's group, launch of a toolkit and report</b>

### 2.2 Adding value to Greater Manchester's services

We were established in 2015 as two sister networks to support major transformation of the region's neurorehabilitation and stroke services. As a single organisation, we continue to facilitate improvement, and as a result, Greater Manchester offers the most well-developed specialist care pathways for neurological conditions in the country, especially in community.

The network is a focal point for neurological conditions in the region. In a system under huge stress, it is crucial that we keep stroke and neurorehabilitation on the agenda. We offer quality improvement expertise and provide the capacity that clinical teams may lack due to service pressures.

Our birds eye view and whole pathway approach across organisational and professional boundaries maximises system engagement and helps rapid spread of new ways of working and best practice.

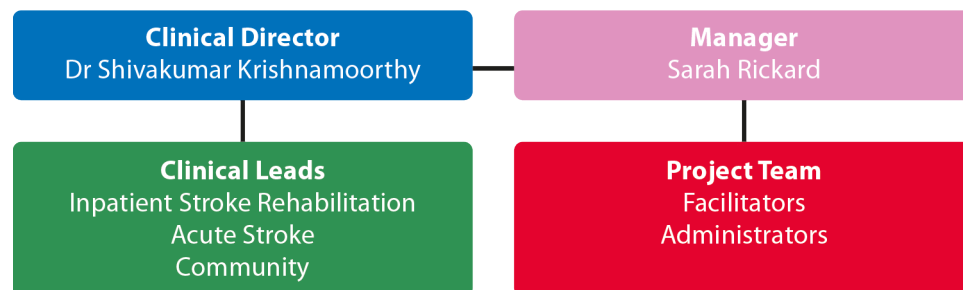
Our approach remains the same, as we aim to:

- **Engage & collaborate**  
Bringing stakeholders together including the NHS, voluntary sector, local authorities, industry, academia and importantly those with lived experience
- **Deliver high impact change**  
Clinically-led, evidence-based, data driven quality improvement
- **Innovate**  
Thinking and working differently to increase efficiency and maximise benefit for patients and our service providers

The continued pressure on our healthcare system means that maximising the opportunities for service improvement has never been more important. As a collective, we must make best use of existing resources, both financial and people, to provide the very best care for our patients.



## 2.3 The network team



In March 2024, we reviewed our clinical leadership and made new appointments to strengthen the team. Our Inpatient Rehabilitation Clinical Lead Jenny Harrison completed her tenure in the Spring with Fatema Mullamitha, our Community Stroke Lead finishing in May. Towards the end of 2024, we appointed two new Clinical Leads in stroke care to work alongside Chris Hyde in community, supporting our Clinical Director Dr Shivakumar Krishnamoorthy. Rachael Collins leads on Inpatient Rehabilitation and Dr Jungim Kwon (known as J) now supports acute stroke. Five local clinicians were also appointed Clinical Associates offering specific areas of expertise:

- Jenny Harrison – Cardiorespiratory
- Katherine Swithenbank and Sarah Williams – Vocational rehabilitation
- Thom Luxom and Susan Bannister – Chairs of our Workforce Development Subgroup

Our Cardiovascular Disease (CVD) Prevention Lead Dr Aseem Mishra finished with us in March 2025 and Dr Janice Mackenzie completed her term as our Clinical Lead for Psychology in June. Our Facilitator Amanda Fish's secondment completed in December. There was passing of ships in March this year when our Facilitator Hannah Jones went on maternity leave (giving birth to baby Evelyn), and we welcomed back Gemma Smith who left the previous Easter.

We were delighted to welcome Stroke Association Associate Director - NW Jen Gardner as a new Co-Chair of our Board, sharing the role with Jackie McShane, Chief Operating Officer at Stockport NHS Foundation Trust.

## 2.4 The importance of clinical leadership



Rachael Collins

The value of clinical leadership cannot be understated when developing high quality care that is patient centred, evidenced based and makes best use of resources.

The network's large portfolio of quality improvement projects is clinically-led with our Clinical Leads working closely with Facilitators (also clinicians) on projects.

We draw on local expertise from across a range of clinical professions and services to utilise a breadth of clinical experience, whilst offering developmental opportunities in return.

Our new Leads in stroke have been kept busy. Rachael has enjoyed stepping into her leadership role and her immediate focus was our cardiorespiratory rehabilitation work.



Dr Jungim Kwon

J has been focusing on implementation of the National Optimal Stroke Imaging Pathway (NOSIP) at our three Hyper Acute Stroke Units (HASU) to enable identification of more patients suitable for thrombolysis and mechanical thrombectomy interventions, as well as exclusion of stroke mimics.

J commented:

*It has been an exciting and enjoyable journey for me since I started, with a steep learning curve! I am looking forward to continuing the work to continuously improve stroke care for our patients.*





## 2.5 Influencing nationally and locally

Greater Manchester has long been a pioneer in the development of high quality stroke and neurorehabilitation services. Our community stroke model is the basis of the NHS England (NHSE) Integrated Community Stroke Service model and the network regularly shares its expertise with other regions.

We often share our experiences of acute care and in the last year helped the North East in planning a 24/7 thrombectomy service as well as the Welsh Government's aspirations for improved stroke pathways.

Since 2024, the network team have supported the NHSE neurology transformation programme as part of a community group. We have helped shape a new toolkit for Integrated Care Boards (ICB) which includes our models of care for community and longer term support. We have also shared outputs from other projects such as MND pathway development on the programme's NHS Futures platform site.

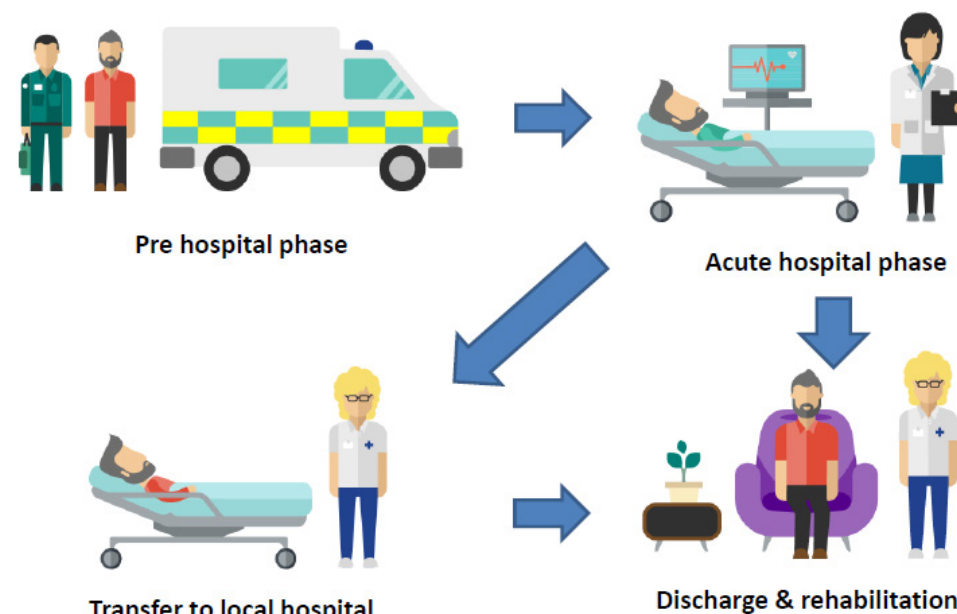


Chris Hyde

In January, we presented at the National Neurology Transformation Meeting which discussed key developments in neurology care, including the national programme. Our Community Clinical Lead, Chris Hyde spoke about our service transformation which has resulted in all but one of our localities now offering a specialist team.

This is a huge achievement as nowhere else in the country provides this level of equity of access to specialist support. The team also took posters showcasing some of our collaborative quality improvement projects.

We are also influential in stroke pre-hospital pathway and stroke audit development at a national level via our Facilitator Chris Ashton (see section 3.2.1).



Locally, we regularly provide expertise to our NHS Trusts. Over the last year, the team have supported transformation of community neurorehabilitation services in the Northern Care Alliance NHS Foundation Trust as well as acute stroke pathway improvement at Manchester University NHS Foundation Trust and Wroughtington, Wigan & Leigh NHS Foundation Trust.



### 3. Our approach to quality improvement

In July 2025, the Government published its new 10 Year Health Plan for England. In our response, we will ensure our focus is supporting Greater Manchester's stroke and neurorehabilitation services in delivering its bold vision.

The Plan is wide ranging and outlines how the country's healthcare will need to evolve if it is to be fit for the future. Much of the change centres on driving forward three left shifts that Lord Darzi identified in his very honest review in late 2024.



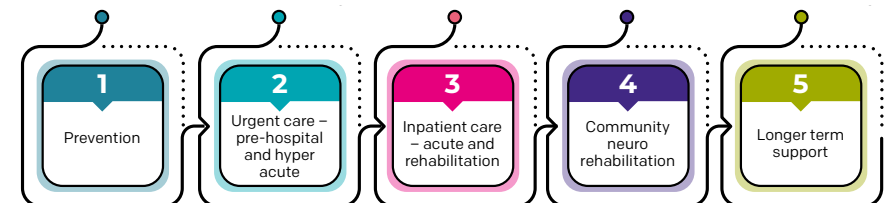
The adoption of more digital technology to increase access to services and maximise staff capacity is another central plank of the Plan. We will ensure our teams are part of wider initiatives to implement more tech whilst continuing to deliver specific digitally based projects. These include improving stroke intervention rates through greater use of AI in imaging, and also using apps, virtual reality and robotics to increase the intensity and frequency of therapy provided by our teams.



The Plan highlights the need to bring more service delivery closer to local communities including co-location of professionals into teams that will eventually be part of Neighbourhood Providers. Neighbourhood Health Centres will be established to make care more accessible through one stop shop models. Our pioneering specialist community service model fits well with this way of working and our approach is always to develop more patient centric, joined up pathways of care that span hospital and community settings.



Greater Manchester has some of the poorest health in the country and the Plan seeks to address long standing inequity and shift healthcare from dealing with the consequences, to tackling the root causes of ill health. Our focus on CVD prevention will ensure our services identify at risk patients so they can be treated quickly after a stroke or Transient Ischaemic Attack (TIA). Our cardiorespiratory training project and others centred on effective rehabilitation will ensure we keep people living well for longer with their condition.



Our portfolio of quality improvement remains diverse, covering the whole patient journey for stroke as well as community and longer-term support for neurorehabilitation. Last year, we undertook a prioritisation exercise to inform our community portfolio. Where possible, we try and include both care settings and specialities and actively engage with the voluntary sector and organisations outside the NHS.

You can review our current portfolio of projects and their impacts on our [“Projects and impacts” webpages](#).

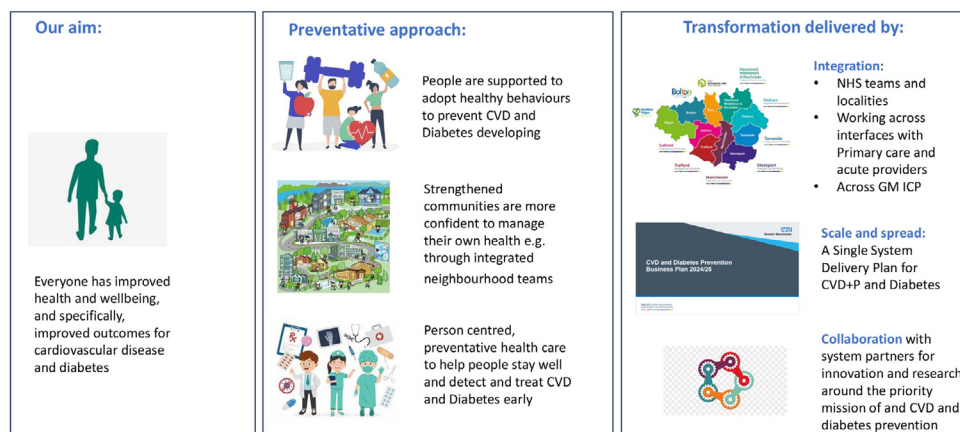




## 3.1 Stroke prevention

### KEY IMPACTS

- Piloting CVD patches to monitor for AF post stroke/TIA at Stepping Hill HASU increasing rates of early detection and treatment
- Genomic testing pilot at Salford Royal that will inform national implementation of new NICE guidance
- Greater understanding of PFO closure by local clinicians to reduce the risk of stroke



Greater Manchester Multi Year Plan

Prevention of disease is a focus of the NHS Plan, with around 80% of strokes avoidable. The network is part of the ICB's secondary prevention and long term conditions programme, which has developed a multi-year plan. This aims to tackle CVD prevention at a system level with interventions mostly delivered in primary care. Our CVD Prevention Lead Dr Aseem Mishra has helped develop CVDNeed, a tool to identify patients in GP practices with unmet need who would most benefit from treatment for Atrial Fibrillation (AF), hypertension and high cholesterol.

We have also been concentrating efforts on reducing the risk of a further cardiovascular event in those who have had a stroke or TIA.

The stroke team at Stepping Hill launched a pilot to improve detection of AF, a key risk factor. Monitoring devices are now fitted to at risk patients as early diagnosis ensures anti coagulation treatment can be started earlier. The results of the pilot will inform future development of the service.

Salford Royal HASU are one of six national pilot sites trialling genetic testing for patients who would be prescribed clopidogrel after a stroke or TIA. The antiplatelet drug works less well in some people depending on their genetic makeup, with high rates of drug insensitivity in ethnic minority populations.



Stepping Hill AF project



GeneDrive point of care testing device

Genomic testing will help identify patients who may need alternative therapies and the results are informing the model of testing and implementation across England.

Patent Foramen Ovule (PFO) closure is a surgical procedure that can help prevent stroke in a small proportion of cases. The network continues to regularly engage with the region's service lead who delivered online training for stroke and cardiology clinicians in June to help promote greater understanding and referral into the service.



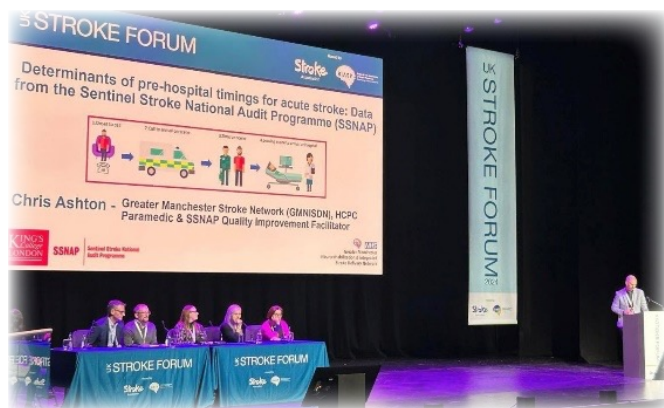
## 3.2 Stroke urgent care (1 of 3)

### KEY IMPACTS

- Extension of ambulance pre-alert window has standardised practice across North West and reduced the times to scan for patients eligible for intervention by 21-35%
- Greater use of advanced imaging has identified more candidates for intervention (all HASUs) whilst excluding stroke mimics (Salford Royal)
- New online referral system has reduced telephone calls by 67% and inappropriate transfers and admissions by 81% (>2100 patients) at Salford Royal HASU

### 3.2.1 Pre-hospital

In late September, our Facilitator and Paramedic Chris Ashton presented at the Northern Ireland Stroke Conference and also spoke at the UK Stroke Forum in December. Chris has been providing expertise to the national Sentinel Stroke National Audit Programme (SSNAP) team and shared their analysis of a national population level based dataset. The project is investigating the variables affecting the four elements of the ambulance pathway which includes the time from patient onset to 999 call.



Chris Ashton at UKSF

In November, an updated pathway was launched across the three North West sub-regions within the North West Ambulance Service (NWS) footprint. The amendments followed a review of the previous clinical exclusions and will help ensure patients are taken to the right hospital first time and standardises practice across the North West.

NWS clinicians are now able to use extended judgement and their clinical support hub for non-textbook F.A.S.T. positive patients. The training video to support the change has been viewed over 260 times so far. This improvement means more patients are accessing life changing treatments such as thrombectomy.

The pre-alert window has also been extended from 6 to 9 hours across the North West to maximise access for patients who may be eligible for intervention.

In Greater Manchester, we have seen significant reductions in the time between arrival at HASU and scan:

- 19 to 15 minutes (21%) in patients with a time of onset to arrival time of 0-6 hours
- 26 to 17 minutes (35%) in those with a time of onset to arrival time of 6-9 hours
- 29 to 23 minutes (21%) for patients with a time of onset to arrival time of > 9 hours.

A new fantastic interactive stroke recognition website is now live for clinicians. It has been designed by Boehringer Ingelheim, supported by local stroke Advanced Clinical Practitioner Joe Dent. The educational platform is also beneficial to professionals working in the community.



Joe Dent



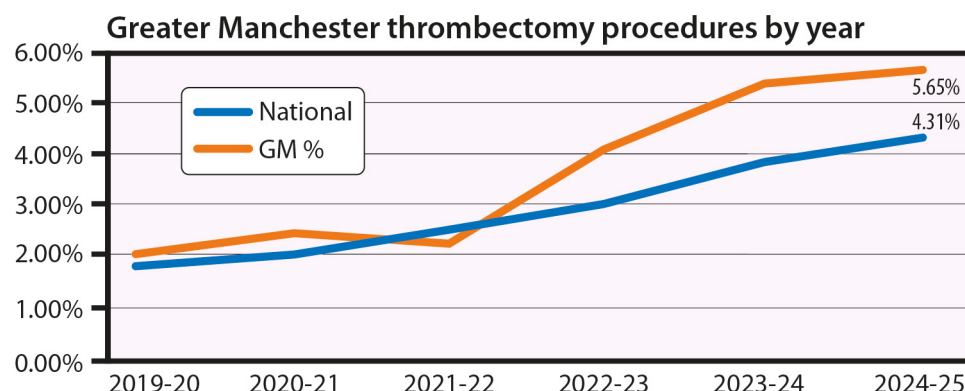


## 3.2 Stroke urgent care (2 of 3)

### 3.2.2 Hyper acute

Our regional thrombectomy pathway achieved the national ambition of providing services 24/7 in March 2022, with many areas in England yet to offer this level of access. We continue to perform well against key metrics for the procedure, especially in speed of process and patient outcomes, with a record 238 patients receiving the treatment in 2024/25.

Our three HASUs continue to focus on improving our thrombolysis rates to reach the national target of 20% of stroke patients. Since falling back to around 7% during the pandemic, we have seen a steady recovery with rates now regularly exceeding the national average at two of our HASUs although there is more work to do.



We have been focusing efforts on extending access to CT Perfusion imaging at our HASUs to meet the NOSIP. This increases the number of patients eligible for thrombolysis and thrombectomy interventions. We now offer CT Perfusion at all HASUs during office hours 7 days a week, with plans for further expansion of hours during 2025.

The Salford Royal stroke team have been monitoring the impacts of greater access to MR imaging (in line with NOSIP) following their move into the new Major Trauma Centre. Early indications are that this has significant benefits in identifying stroke mimics and avoiding inappropriate admission onto the stroke ward.

Following many years of gestation, Salford Royal finally launched an online referral system called Patient Pass for hyper acute stroke in 2024. The new process removes the need for telephone referrals which lacked governance and was inefficient. It also ensures appropriate patients are referred, reducing unnecessary NWAS transfers and use of Salford hyper acute beds. An audit revealed there were 2619 referrals in 2024/25, the median response time was 27 minutes and it reduced the need for telephone calls by 67%. Only 19% of referrals were accepted, with over 2,100 rejected, greatly reducing pressure on hyper acute stroke beds and NWAS services.



NHSE visit June 2024

In June, Greater Manchester were delighted to host NHSE National Medical Director and National Stroke Clinical Director to hear more about our mechanical thrombectomy service.

The delegation heard about our high performing stroke pathway and how our thrombectomy service has been developed. They were taken round key clinical areas at Salford Royal including the new stroke facilities in the Major Trauma Centre which Professor Stephen Powis declared to be the best they had seen so far. The day was a team effort and highlighted how closely everyone works within the network to deliver this amazing, life changing intervention.



### 3.2 Stroke urgent care (3 of 3)


In January, our clinical teams joined colleagues from the North West to review current service provision. The meeting was once again attended by National Stroke Clinical Director, as well as the Getting it Right First Time Stroke Lead. The regional teams already regularly meet to share best practice, but it was a good opportunity to also engage with senior members of NWAS.



Johnson & Johnson Review March 2025

In March 2025, Greater Manchester came together again to dissect the findings of a detailed review of its thrombectomy pathway. A team from Johnson & Johnson observed the pathway in action for 4 days and interviewed staff on the ground. The report has identified key areas where we can make improvements, with many actions focusing on the “human factors” which influence how people behave.

### 3.3 Stroke acute care (1 of 3)

 **KEY IMPACTS**

- **Audit of stroke units of National Clinical Guideline for Stroke (2023) showed all HASUs fully complied with >90% of relevant recommendations and DSCs on average 81%**
- **‘A’ rated care provided by all three HASUs with 3/5 DSCs rated ‘A’ or ‘B’ by SSNAP**
- **Our HASUs scan patients twice as quickly as nationally on arrival**

#### 3.3.1 Stroke team performance

The updated National Clinical Guideline for Stroke was published in 2023 and between September-November 2024 we audited compliance of all inpatient and community teams with applicable recommendations. It was a mammoth task to report and collate the information – no other region has undertaken such a comprehensive review. The information has helped us benchmark our stroke services across the whole care pathway and identified recommendations ripe for improvement, at a team and network level. You can download a redacted version of the report on our website page. Overall compliance is very good for both hyper acute and acute care delivered in HASUs as they fully met >90% of hyper acute / acute recommendations, with District Stroke Centres (DSC) meeting between 63-100% (average 81%).

	Apr-Jun 2023	Jul-Sep 2023	Oct-Dec 2023	Jan-Mar 2024	Apr-Jun 2024	Jul-Sep 2024
Fairfield HASU	A	A	B	A	A	A
Salford HASU	B	A	A	A	B	A
Stepping Hill HASU	A	A	A	A	A	A
Bolton DSC	C	B	C	B	C	C
MRI DSC	B	B	C	D	A	B
Tameside DSC	A	A	A	A	A	A
Trafford DSC	B	C	B	A	B	A
Wigan DSC	D	D	D	D	D	D

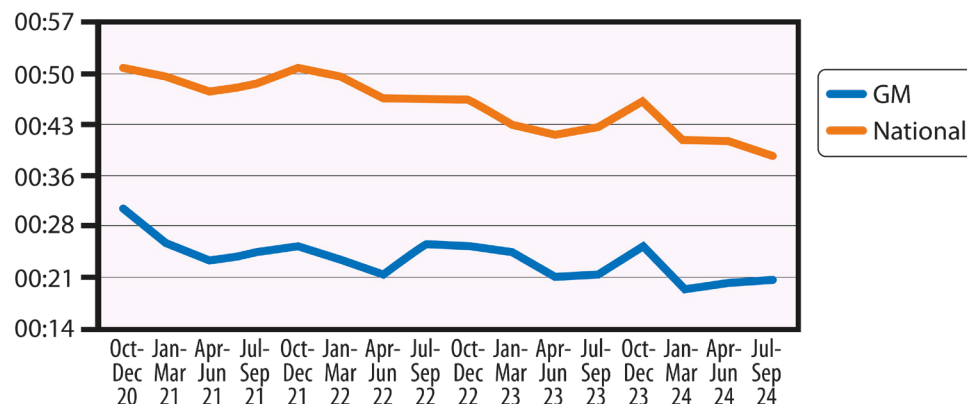
Overall rating of Greater Manchester stroke units (SSNAP team centred data)



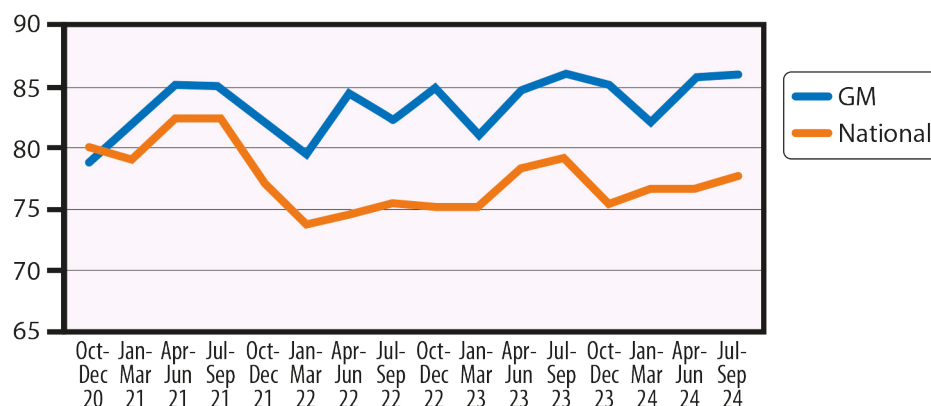


## 3.3 Stroke acute care (2 of 3)

We continue to regularly analyse and present SSNAP data to monitor the performance of our stroke services and identify areas for improvement. Our centralised pathway continues to perform well above national average for almost all key indicators of care. Services have returned to pre-pandemic levels of performance, with our HASUs rated 'A' and 3/5 DSCs 'A' or 'B' in most reporting periods during 2024/25.



Other areas where we excel include median time between clock start and scan, where our HASUs image almost twice as quickly.



Our stroke units also ensure a greater proportion of patients spend 90% of their stay on a stroke ward, achieving >85% in the last period where data is available.

### 3.3.2 Stroke pathway improvements

We are working closely with the team at Wroughtington, Wigan and Leigh NHS Foundation Trust to improve their SSNAP scores and ability to accept repatriations back on time. Both have been long-standing-issues, and the Trust are currently implementing a plan to move wards and increase access to suitable gym facilities.



MFT pathway development

We have also been supporting Manchester University NHS Foundation Trust's improvement of stroke care for South Manchester residents. Executives are now fully engaged in resolving these issues and also supporting a longer term plan for the Trust's stroke services.

In August, Stockport NHS Foundation Trust finally launched a new NHSE SQuIRE Catalyst-funded pathway for visual impairment. This pioneering initiative now sees the orthoptic team actively working on the acute wards. An Eye Care Liaison Officer employed through sight charity Henshaw's has also joined the team providing vital guidance and acting as a key point of contact for patients requiring further assistance. Both staff and patients have greatly appreciated specialist involvement.

We want to thank you for your great support. You've been really helpful - for example, with a patient with hemianopia who was screened by OT over the weekend. The orthoptists were able to make a direct referral to the Community Stroke Team on Monday.

Occupational Therapist



### 3.3 Stroke acute care (3 of 3)



Our inpatient teams continue to innovate, especially in therapy. In September, the Fairfield General Hospital Speech and Language team added some fun on the stroke wards by bringing some new visitors including a lizard and guinea pig. Animal therapy is a great way of increasing communication environments, participation and general happiness.

Over in Bolton, the stroke unit therapy team harnessed excitement around the Paris Olympics in August by hosting their own mini event. Patients were encouraged to take part in sports to help boost engagement with their rehabilitation, which also cheered everyone up on the ward.

During the pandemic, Social Workers were withdrawn from hospitals and a new process called Discharge To Assess introduced. These changes have sometimes led to poor patient experience - especially for more complex patients - and inefficient working between teams.

The network attended the Greater Manchester Directors of Adult Social Services meeting and established links with localities with issues, namely Bury, Stockport and Wigan. Meetings between social care, inpatient and complex discharge teams have now taken place in these boroughs resulting in closer working and greater understanding between services, plus more efficient processes leading to better patient experiences.

During the year, we also facilitated the collaborative development of local clinical guidelines for Embolic Stroke of Undetermined Source, expanding on national stroke guidelines to provide greater consistency in diagnosis across our stroke teams.

### 3.4 Inpatient neurorehabilitation



*The Devonshire Centre for Neurorehabilitation*

As part of the ICB's neurorehabilitation transformation programme, the Devonshire Centre for Neurorehabilitation is being transferred from Stockport NHS Foundation Trust to the management of Northern Care Alliance NHS Foundation Trust. The service will continue to be provided in its current location. This move is in line with the original reconfiguration which stalled during the pandemic. Work recommenced in October with the initial phase involving the transfer of therapy and medical staff in early 2025. The ICB has provided additional funding to increase staffing levels and the second phase to enact full transfer of staff and the service will continue during 2025.



*Deb Dunstan*

The ICB has also funded a new regional case management team led by Deb Dunstan to more effectively manage complex patients needing longer term neurorehabilitation. The team launched at the start of 2025 and hope to recruit a Social Worker to support decision making. The ICB is also refreshing the business case to complete transformation of the pathway as per original plans. The network is supporting the case for additional funding for community teams to help fully realise the ambitions of the programme.





## 3.5 Rehabilitation (1 of 4)

### KEY IMPACTS

- Launch of Greater Manchester Neurogenic Bladder & Bowel Service – first of its kind in the country
- Successful completion of MND Association funded collaborative project with a further award for emotional wellbeing focused follow on initiative
- Over 80 clinicians attended Acceptance and Commitment Therapy training
- Toolkits published to support improvement in FND, MND and spasticity

### 3.5.1 Community team performance

All 13 Community Stroke Teams (CST) completed the audit of the National Clinical Guideline for Stroke (2023) for Section 4 (rehabilitation and recovery) and Section 5 (long term support and secondary prevention).

For section 4, CSTs fully complied with 61-86% (average 73%) of relevant recommendations compared to stroke units 47-84% (average 71%).

In section 5 CSTs complied 50-87% (average 66%) with stroke units scoring better at 66-98% (average 86%). The variation between CSTs is in part due to levels of funding as they are locally commissioned to different levels of our community model.

#### NATIONAL CLINICAL GUIDELINE FOR STROKE for the United Kingdom and Ireland

2023 edition



[www.strokeguideline.org](http://www.strokeguideline.org)



We are the only region who regularly report on their stroke and neurorehabilitation services, and our latest report published in April 2025 showed:

- Variation in the total number of stroke referrals accepted by teams each year with an overall rate in Greater Manchester of 1.69/1000 population, with a rate of 2.11 for neurorehabilitation referrals
- Over half of teams who treat stroke patients are at least 80% compliant with key elements of the model. No teams have the recommended 12 professions and only one team meets the 85% staffing level specification. Only half provide a 6 day a week service
- A third of teams who treat neurorehabilitation patients are at least 80% compliant with the model. Most teams do not have the recommended 12 professions or meet staffing levels. Only a quarter provide a 6 day a week service

We continue to work with NHS providers and localities to reduce the variation in eligibility criteria in Community Neurorehabilitation Teams (CNRT) as there currently is a postcode lottery across the conurbation.

#### Benchmarking of community stroke and neurorehabilitation services in Greater Manchester



Reporting period: April-September 2024  
Published: March 2025

GMNIDN Community Services Report Apr - Sep 24 V1

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## 3.5 Rehabilitation (2 of 4)

### 3.5.2 Neurological condition pathway development

January saw the launch of a new Neurogenic Bladder and Bowel Service for Greater Manchester – the first of its kind in the country. The service is the culmination of collaborative working facilitated by the network. The initiative has involved a wide group of stakeholders including Manchester Centre for Clinical Neurosciences teams, local continence and CNRTs as well as charities such as MS Together and the MS Trust.



*Launch of Greater Manchester Neurogenic Bladder & Bowel Service*

Neurogenic bladder and bowel is common in many neurological disorders and access to timely specialist support is often not available. Patients experience variation in receiving treatment with long delays. Many end up in A&E, with costs calculated to be >£5.4 million a year at Salford Royal alone!

A steering group of key stakeholders developed pathways of care based on the clinical guidelines and local expertise. Continence product supplier Coloplast agreed to fund the service to get it off the ground. There is now a team of clinicians and administrators who ensure patients are seen and treated quickly and provided with the products they may need regardless of supplier.

The service is initially treating MS and spinal injury patients, with plans to expand criteria in future. The new team will upskill our clinical teams and ensure they work more closely together to better co-ordinate care. The service is collecting data to demonstrate its value with extremely encouraging results so far including patients being able to sleep through the night and go away on holiday.

We have previously reported on improvements facilitated by the network and funded by the MND Association. Within the wider project that started in 2022 was a review of current nutritional pathways via audits and focus groups. Staff surveys

were also undertaken to establish confidence and competency levels in delivering nutritional care to people with MND. This work was led by Manchester Centre for Clinical Neurosciences senior specialist Dietitian Christina Federico.

Christina led the development of a nutrition specific education package which she delivered to dietetic teams across the region. She has supported nutritional education to the wider multi-disciplinary team at our now regular MND training events. Feedback has been very positive with all Dietitians stating they felt more confident in managing nutritional care in MND. The project has enabled the MND specific gastrostomy pathway at Salford Royal to be reviewed and updated. Details of the education programme were shared at a national nutrition conference.



*Christina Federico*

We have now commenced a follow-on project with further funding from the MND Association. It will focus on emotional support pathways and an Assistant Psychologist has been appointed, working under the supervision of a senior clinician with support from the network team. We anticipate the project will also benefit other neurological conditions.

Using our work in MND as an exemplar, an MS Pathway Development Steering Group is now established with excellent stakeholder engagement, including representation from the Manchester Centre for Clinical Sciences MS and Neurorehabilitation Medicine teams, CNRTs, charities, and crucially those with lived experience. So far, the group has reviewed national guidelines to map current MS service provision across the region, identifying key stages in the pathway for potential enhancement. A project plan is being developed and we will keep you updated with progress.



*MND training day December 2024*



## 3.5 Rehabilitation (3 of 4)

### 3.5.3 Improving access to emotional wellbeing support



Dr Janice Mackenzie

Several years ago, we appointed Dr Janice Mackenzie as our Clinical Lead for Psychology to enhance support for emotional wellbeing and cognition in stroke and neurorehabilitation. Janice finished her tenure in June but has left a lasting legacy including designing a novel Acceptance and Commitment Therapy 12 month training programme for local teams including funded clinical supervision for teams lacking a Psychologist. The programme was attended by over 80 local clinicians with detailed evaluation underway and a further course planned in 2025/26.

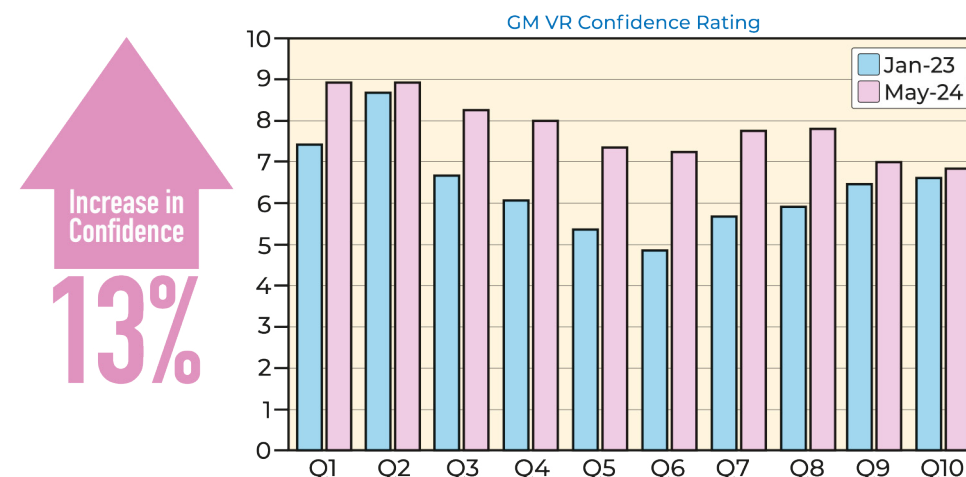
Her work included scoping of both community and inpatient stroke and neurorehabilitation psychology services to better understand staffing and clinical practice. The results have informed further training and improvement projects by our Clinical Psychologists via a revamped community of practice across the North West.

### 3.5.4 Updating driving advice

Throughout the year, we facilitated a group to develop a set of guidelines for clinicians when supporting patients with neurological conditions. The guidelines were also taken through our Patient & Carer Group and amended following feedback. Having been formally approved, the guidelines can be found on our website alongside our stroke version (which are also being updated) at [Driving advice for professionals](#).



### 3.5.5 Developing vocational rehabilitation



We have had a long standing project to improve people's experience of returning to work or other vocational activities. In May, we conducted a regional audit of interventions which showed variation in all levels of intervention and significant gaps in Level 1 (specialist) support. Our vocational rehabilitation (VR) Community of Practice discussed the findings alongside examples of good practice to help find ways of improving equitable access to Level 2 and 3 interventions. Whilst Greater Manchester doesn't currently have a dedicated specialist service due to funding limitations, some teams are delivering elements of specialist level VR. Teams shared their expertise and resources to build confidence and capacity across the region.

We asked clinicians to rate their confidence in delivering VR which improved over the first year of the Community of Practice. Clinicians rated their confidence across ten interventions, with average scores rising by 13%. We also noticed an increased uptake of clinicians completing the VR training webinars. The VR Community of Practice has recently expanded its membership to include clinicians from other North West regions.





## 3.5 Rehabilitation (4 of 4)

### 3.5.6 Upskilling professionals to deliver better care



Stroke Ed training

We were once again delighted to host Stroke Ed, an Australian based company specialising in rehabilitation training for therapists.

During a week in late September, we helped facilitate two courses: balance and lower limb. Both were well attended from across inpatient and community stroke and neurorehabilitation services. Each day involved patients to help attendees practice their new skills and knowledge.

Our local clinicians often share their expertise with Helen Glodkowski, neuro physiotherapy lead in the Central Manchester Community Stroke & Neurorehabilitation Team taking part in a podcast for the MS Society in 2024. The recording discussed the impact of physiotherapy for people living with MS: A life on the progressive side episode 2 | MS Society.



Helen Glodkowski

Helen thoroughly enjoyed the experience and reflected:

*It came as a complete surprise to be invited to participate in this joint venture. I felt honoured to be asked, but it was also an opportunity to promote the importance of therapy input and to do so in a slightly different way to our normal routes. It was both a terrifying and enjoyable experience to record the podcast, but I really hope that it has encouraged people to look for some physio input, as we know it can improve people's quality of life.*

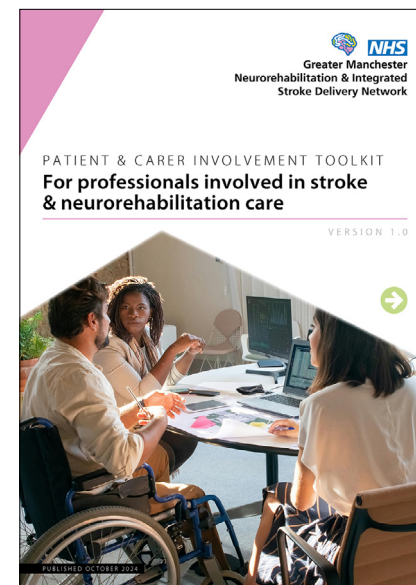
### 3.5.7 New toolkits to support quality improvement

During 2024/25 we published a range of toolkits to support service involvement. They bring together key information, learning and resources developed as part of projects we have facilitated.

The documents are hosted on our website alongside accompanying resources including training videos. Some may require website registration and log in to access:

- [Patient & carer involvement toolkit: For professionals involved in stroke and neurological care](#)
- [Greater Manchester TIA toolkit for stroke professionals](#)
- [Greater Manchester Functional Neurological Disorder toolkit](#)
- [Greater Manchester Spasticity toolkit](#)
- [Greater Manchester MND Toolkit](#)

Further toolkits are under development and will be published during 2025/26.



## 3.6 Longer term support

### KEY IMPACTS

- Development of a single dashboard to benchmark localities against the stroke and neurorehabilitation models
- Piloting of new longer term support model for neurological conditions by Bolton community services

Neurological conditions usually affect health in the long term, and also can greatly impact the lives of carers and family members. Helping people to live well at home – both preventing sickness and keeping patients out of hospital are Darzi left shifts.

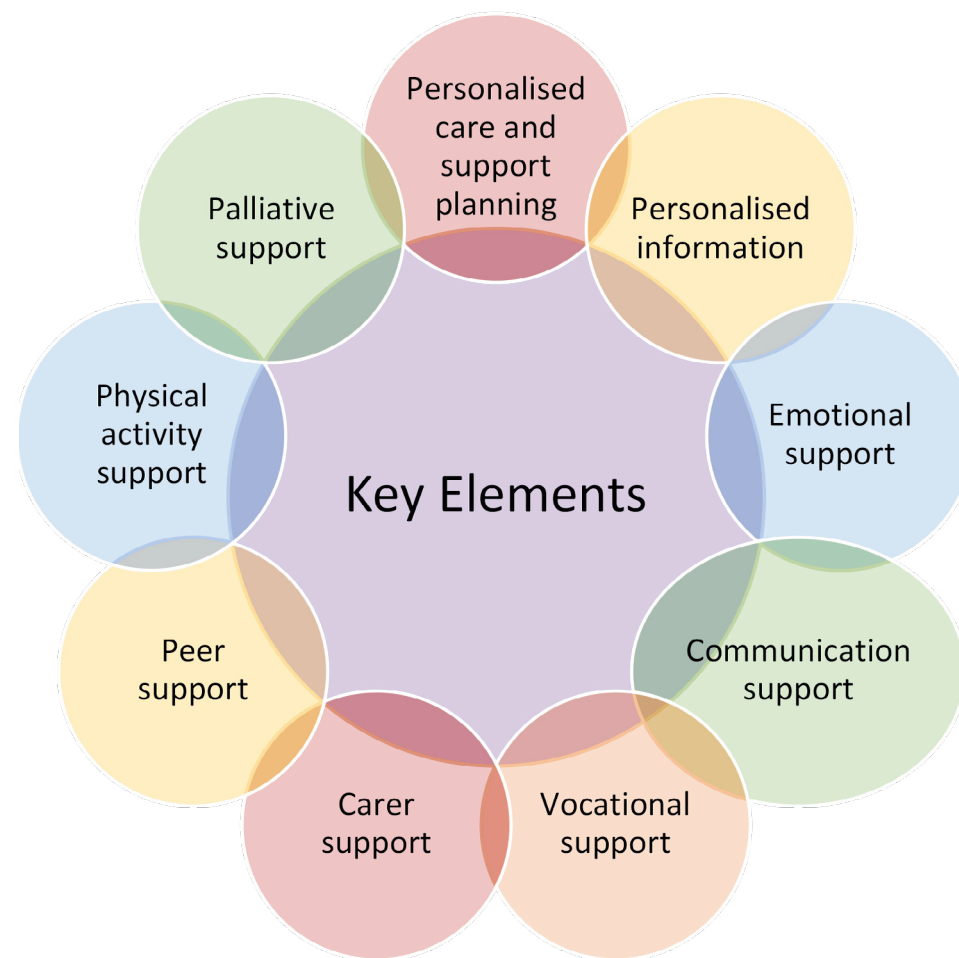
We have previously supported the piloting of the NHSE Life after Stroke (LAS) model in North Manchester, with results to be published as a toolkit. There is no national model for other neurological conditions and so in 2023 we convened a steering group to develop one using the LAS as a starting point. Both models are very similar in their key elements, as focus on need rather than diagnosis.



Susan Bannister

During 2024 we developed a single dashboard to allow each locality to assess how well local services were able to provide the key elements of the LAS and our new model for other neurological conditions.

In late 2024, the new model was piloted to test its feasibility in the Bolton locality, led by their CNRT Lead and our Clinical Associate Susan Bannister. The results are being written up along with the findings of the LAS pilot into a toolkit to support roll out across Greater Manchester.



Greater Manchester Neurological Longer Term Support Model



## 4. Enabling activities

### 4.1 Workforce development (1 of 2)



#### KEY IMPACTS

- 2 webinars and 8 in person training events
- YouTube training videos viewed 8,242 times for >905 hours, with 96 new subscribers
- Large portfolio of >100 videos viewed over 32,500 times since channel launch in 2020

Our support for workforce development enables staff to be better equipped with the knowledge and skills essential for providing high-quality care. It also improves the recruitment and retention of often scarce specialist staff. Increasingly, access to funding for Continuing Professional Development is becoming more difficult for NHS teams so our comprehensive portfolio of low or no cost training for staff is an important part of how we add value as a network.

In March 2024, we launched our [workforce development strategy](#) which has shaped our activities in:

- Focusing on workforce - supply, recruitment and retention of professionals
- Working differently - new roles and ways of working including strengthening leadership

This has been translated into different workstreams:

- Regional introductory stroke training programme for new professionals
- Comprehensive programme of face to face and online events for experienced staff
- [Training pages on our website](#) with information and resources including Elearning packages
- Specific projects in key areas of workforce development such as [advanced practice](#)
- Facilitation of peer support groups for professionals

We have collated our training outputs from 2024 and published in a report which you can [download here](#).

#### 4.1.1 Introductory stroke training

Our introductory programme features regionally agreed, multi-disciplinary focused content delivered by stroke teams in our local Trusts. Three events were held during 2024/25 open to any professional working in stroke care, including the voluntary sector. In November, Manchester University NHS Foundation Trust stroke services hosted their event that was well evaluated, with one attendee commenting:

*Really enjoyed getting a chance to listen to different professionals I don't normally get a chance to speak to particularly acute nurses, paramedics & orthoptist.*



*Introductory stroke day November 2024*





## 4.1 Workforce development (2 of 2)

### 4.1.2 Training for experienced staff

We facilitated 8 events during 2024/25 – 2 online and the rest face to face. These included facilitating two courses led by [Stroke Ed](#) and another in partnership with [GM Active](#) (see section 3.5.6).

In October, we hosted a webinar on sex and relationships featuring experts from across the country. This topic was raised at our Patient & Carer Group, with members fully involved in developing and delivering content. A follow up advanced level face to face event was held in March 2025 and we have now incorporated the training into a [new webpage](#) full of resources.



*Webinar on sex and relationships*



We collaborated once again with the [UK Acquired Brain Injury North West Forum](#) to jointly host a webinar on homelessness. Supporting people with a brain injury or other neurological conditions who are affected by homelessness can be challenging for our local services. The training included an eminent barrister and local Social Worker with significant experience of helping impacted patients get back on their feet.

A successful advanced spasticity workshop was delivered over the course of 1.5 days at Bolton University. This was accessed by specialist physiotherapists and occupational therapists from across the region and focused on therapeutic handling of spasticity. This will form part of an ongoing training programme overseen by the network's steering group.

On 31st October, we hosted a workshop with [GM Active](#) who provide health and wellbeing facilities across the region. This initiative arose from the need to meet new recommendations in the [National Clinical Guideline for Stroke \(2023\)](#) as well as supporting CVD prevention. Expert speakers covered a range of topics with workshops that provoked thoughts on current delivery, gaps, opportunities, next steps and how we can continue to work collaboratively. The main outcome of the workshop was to establish a cardiorespiratory exercise steering group to look at the priorities from the workshop and how we move forward at a local and regional level. Watch this space for exciting developments next year!



*Cardiorespiratory exercise training*

Our local teams also organise their own events. Stroke and neurological Occupational Therapists from across Manchester University NHS Foundation Trust came together in November to enhance their clinical reasoning and therapeutic handling skills in assessing and treating patients with upper limb difficulties.



*MFT Occupational Therapy training*



## 4.2 Patient and carer involvement

### KEY IMPACTS

- Increased diversity and resilience in the network's Patient & Carer Group
- Launch of involvement toolkit including a webinar and webpages with resources
- Training of the network team
- A report outlining the step change, also available in plain English



Abi Bisset and the team

Over the past two years we have been working to create a step change in how we hear the voices of people with lived experience in the network. In 2022, we created a new Involvement Co-ordinator post to expand our engagement and inclusion, as well as strengthening our Patient and Carer Group.

Unfortunately, due to funding pressures, we weren't able to renew the post and Abi Bisset left us at the end of January – a bitter pill to swallow as she achieved so

much. However, her legacy lives on and the team now have the skills and resources to continue her good work and share with others. This includes:

- Helping grow a more robust, diverse and accessible Patient & Carer Group that is actively helping shape and deliver our strategy and activities
- Developing new ways for those with lived experience to contribute outside of the Group
- Launching a toolkit of resources to help the network and local teams involve those with lived experience more effectively and often in projects
- Training the network team to maximise the benefits of involving patients and carers

We now have comprehensive webpages for patient and carer involvement including:

- [Patient & Carers – highlighting what PPI is and opportunities to get involved](#)
- [Professionals – support to undertake PPI in their service improvement including a toolkit of resources](#)

You can read our step change report which also has a plain English summary.



Network Patient and Carer Group

As a result of this focus, our Patient & Carer Group goes from strength to strength and now meets regularly at a new, more inclusive venue in Stretford, Trafford. Meetings continue to be well attended and we now provide members with regular information on getting involved in opportunities plus a new newsletter in plain English format to keep them updated.



Bury Bike Ride

Our members are often involved in local charities. Seth who attends Speakeasy set himself the challenge of riding C2C (Coast to Coast) with his friends Mark and Gareth. He has been riding a recumbent bike since 2015 and had been wanting to do the ride for 20 years, since before his brain injury.

Two volunteers from Speakeasy rode part of the way with him and he shared his adventures through a presentation which has inspired others to have a go.





## 4.3 Research & Innovation

In 2023/24 we held a stakeholder meeting and ran task and finish groups to explore opportunities for our teams to get more involved in research. In July, we launched new webpages to help support local teams:

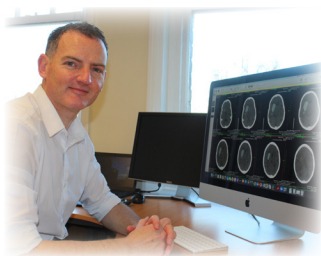
- [Getting involved in research](#)
- [Understanding the National Institute for Health and Care Research \(NIHR\)](#)
- [Developing an academic career](#)
- [Developing research studies](#)

Greater Manchester's strong track record in stroke research would not be where it is today without the driving force of a legend in the field. In January, we were saddened to hear the news of the death of Pippa Tyrrell, emeritus Professor of Stroke Medicine at the University of Manchester and retired consultant in stroke medicine at Salford Royal. Many of you will have worked with Pippa over the years and she was a great friend of the network. She significantly influenced the development of our centralised hyper acute model.



Pippa Tyrrell (on the left)

Such was her influence, that we created an outstanding achievement award in her honour that continues to be presented at our annual conference. Pippa inspired a generation of clinicians and researchers, and her legacy is the continued excellence of stroke care and flourishing portfolio of research across Greater Manchester.



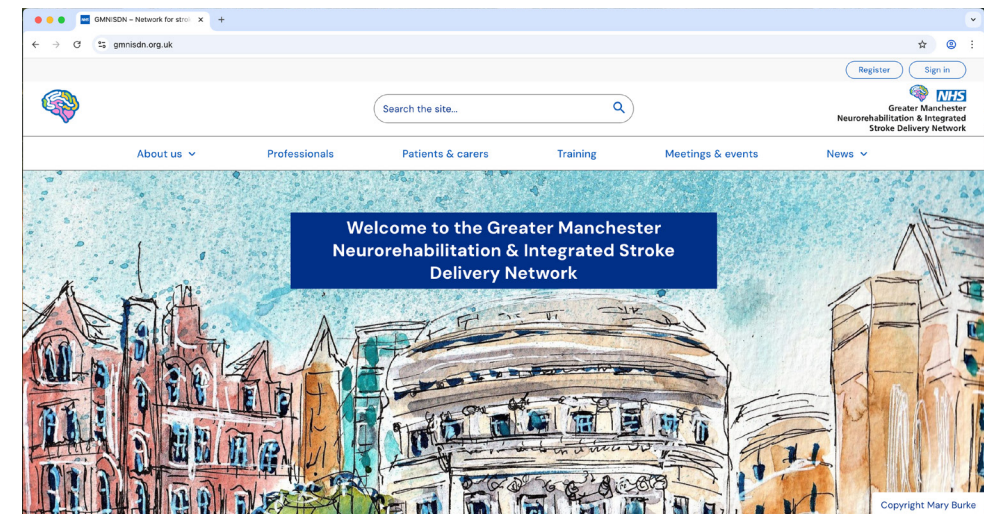
Dr Adrian Parry-Jones

Pippa was a mentor to many academics, including former Network Clinical Director Dr Adrian Parry-Jones who was made Professor of Vascular Neurology at The University of Manchester in the Summer. Another of Pippa's former colleagues is Dr Claire Howard who was awarded a prestigious 5-year Advanced Clinical and Practitioner Academic Fellowship. She will develop a smartphone application for virtual reality-based training for visual impairment after stroke and we will be working closely with Claire as she progresses the project.

## 4.4 Communicating with our stakeholders

Good communication is the bedrock of effective engagement and collaboration, particularly when working across a large geographical area with people from different sectors, professions and teams.

Our website underpins our activities and is a huge repository of information. Content is regularly accessed by our own teams but also well used by other services from across the country and beyond. In the past 12 months it has been viewed 30,473 times by 6,557 users and covers key areas of activity: [Professionals](#), [Patients & Carers](#), [Training](#), [Meetings & Events](#).



GMNISDN Website Home Page

Our website also helps us to maintain good governance for our care pathways. For example, earlier this year we transferred our [Document Pack from an unwieldy spreadsheet to webpages](#) so teams can download the latest approved procedure, guideline or toolkit. You can [register](#) to gain access to additional resources and we also have a [mailing list for our quarterly bulletin](#).





## 5. Looking to the future

In Manchester, it is often said that we like to do things differently. As a network, we are unique in England as an NHS provider funded stroke collaborative with no other region hosting a network that supports improvement in neurorehabilitation services. Over the past decade, we have achieved many great things by working together and doing things differently, and will be celebrating our 10th birthday in July 2025.



*The network celebrated its birthday at its Annual Conference in June 2025*

In a healthcare landscape with ongoing severe financial and service pressures that is also contending with further re-organisation, we must clearly demonstrate our value as a network. This report highlights the fruits of our collaborative efforts for patients and their families as well as the benefits for care providers and the wider Greater Manchester health and social care system.

The planned abolition of NHSE and significant reductions in ICB running costs has left our local healthcare system once again in flux. However, our funding model has ensured our stability over the past 2 years, allowing the team to remain focused on quality improvement whilst stroke networks in other regions have been decimated.

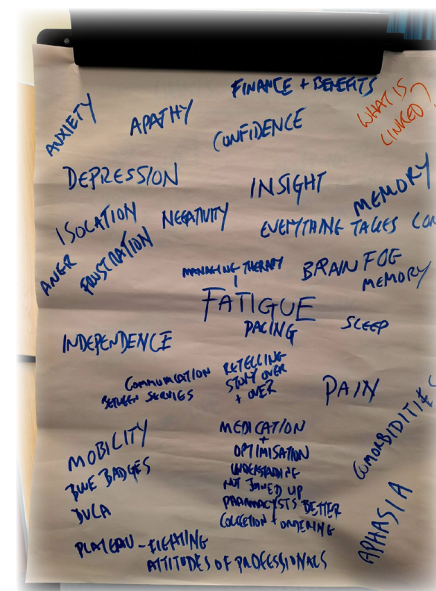
In the forthcoming year, we will continue to adapt to this new world, including reducing our costs. We have been preparing for this eventuality and took steps last year to lower our expenditure through natural wastage of posts. During 2025/26, we will be reviewing our clinical leadership and substantive posts and exploring ways to increase our non-provider income.

The new [NHS 10 Year Health Plan](#) will help steer our priorities including the Darzi report's 3 left shifts. We will continue to support our stroke services in working towards greater compliance with the [NHSE Stroke Service Model](#) knowing that we have already underpinned transformation of our services to deliver key elements. The new NHSE neurology toolkit for ICBs will inform this area of work, although, once again we are well ahead of the rest of the country in what care is provided, especially in community.

But what really drives us is what those with lived experience of neurological conditions tell us matters most to them. We regularly ask this of our Patient & Carer Group to help inform our programme of projects. This year they told us that medicine management and support for carers were areas we needed to do better in Greater Manchester, and so we will be reviewing what improvements may be needed in our services.

Our close relationships with voluntary sector organisations are also crucial in developing holistic pathways of care that meet the needs of our patients and their carers. This report contains many examples of collaborations that have helped bring services from different sectors closer together to work towards a shared goal. We will do more of this in the future, as maximising use of local "assets" is crucial in the current climate.

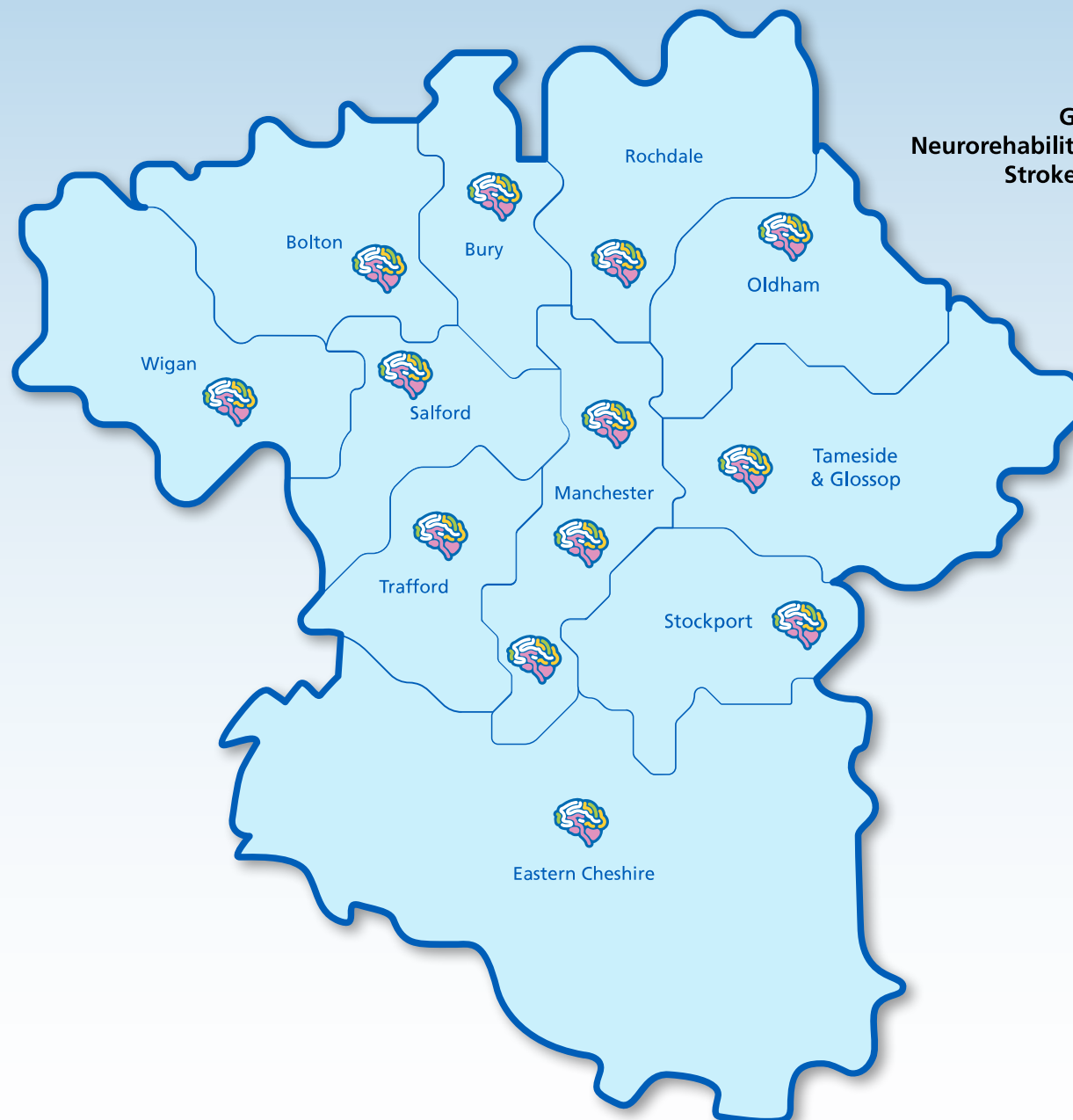
We would like to thank everyone who has supported us in the past 12 months and also the last decade – it is always a team effort. We should be proud of everything that has been achieved and never forget that by working together we are always stronger, and better able to navigate through whatever choppy waters lie ahead!




## Our region




Greater Manchester  
Neurorehabilitation & Integrated  
Stroke Delivery Network




### Find out more:

 [www.gmnisdn.org.uk](http://www.gmnisdn.org.uk)


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