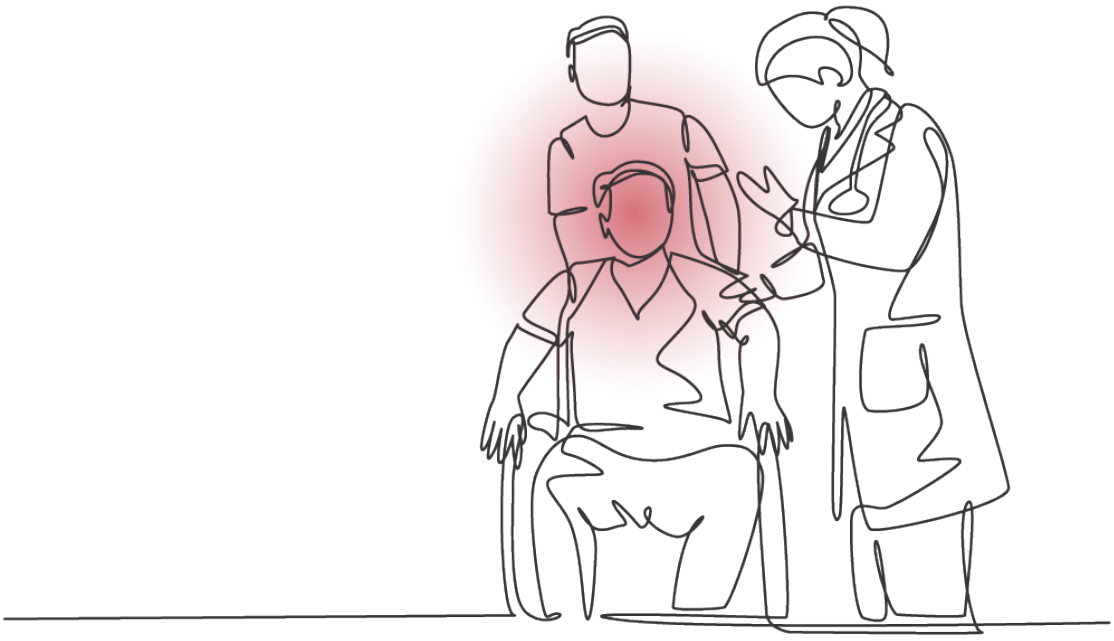
Herefordshire and Worcestershire Integrated Care System

NHS Herefordshire and Worcestershire



# Improving Stroke (including TIA) Services across Herefordshire and Worcestershire

Issues Paper September 2022

# Introduction

The health and care leaders and clinicians across Herefordshire and Worcestershire responsible for planning care for our patients and communities, have come together to ensure we deliver the best quality stroke services for the people we serve.

We have worked together to develop our view of how these services could be delivered.

Stroke is a serious, life-threatening condition. It is the leading cause of death and disability in the UK with around 32,000 stroke related deaths in England every year. Around, one in six people will have a stroke during their lifetime, and it is estimated that around 30% of people who have a stroke will go on to experience another at some point.[1]

With the right specialist treatment, care and support, people can go on to live full and independent lives. We have ambitions to ensure we deliver both now and in the future high-quality stroke and TIA (transient ischaemic attack or 'mini stroke') services across Herefordshire and Worcestershire.

To achieve this, we are looking at the way stroke and TIA services are organised and run in our area, so that everyone who accesses services in Herefordshire and Worcestershire will have the best opportunity to survive and thrive after stroke.

This Issues Paper aims to describe the way stroke services are delivered across Herefordshire and Worcestershire and highlight the challenges we face in delivering a sustainable service.

Previous engagement has taken place and we would like to thank those who shared their experiences with us.

We began our journey to improve stroke services by engaging with patients and staff in 2018. As we move out of the COVID-19 pandemic we would like to continue this conversation. We would like to hear from you about the issues and challenges we face in delivering sustainable stroke and TIA services in line with national clinical standards, as well as potential solutions to these. This opportunity will help us to transform services and ensure high quality stroke and TIA services for the future.

This document is also summarised in a presentation which is available here https://www.hwics.org.uk/get-involved/involvement-opportunities/stroke-services

We would like to hear your views on this paper, and details on how to get in touch are at the end of this document, or please contact hw.engage@nhs.net

[1] www.gov.uk

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# Glossary

**Acute Stroke Unit (ASU)** – for patients after 72 hours of admission. The ASU is an acute neurological ward providing specialist services for people who have had a new suspected stroke.

**Atrial fibrillation** - is **a heart condition that causes an irregular and often abnormally fast heart rate**.

**Community Stroke Rehabilitation (CSR)** - is an inter-disciplinary team made up of Nurses, Allied Health Professionals (Physiotherapists, Occupational Therapists, Speech and Language Therapists and Dietitians) and Rehabilitation Support Workers (RSW's) who provide community rehabilitation for patients in their own homes, residential homes and nursing homes.

**Early supported discharge (ESD)** - is an intervention for adults after a stroke that allows their care to be transferred from an inpatient environment to a community setting. It enables people to continue their rehabilitation therapy at home, with the same intensity and expertise that they would receive in hospital.

**Integrated Care Board (ICB)** –The ICB replaced the Clinical Commissioning Group (CCG) on 1 July 2022. The ICB leads the health element of the Herefordshire and Worcestershire Integrated Care System (ICS), which brings together the local NHS organisations, councils and the voluntary, community and faith sector to achieve better health outcomes for people who live and work in the two counties.

**Integrated Care System (ICS) –** An integrated care system (ICS) is when all organisations involved in health and care work together in different and more joined-up ways.

**Hyper Acute Stroke Unit (HASU)** - 0-72 hours after admission. The main focus of HASU is to closely monitor and stabilise the medical condition of a person newly diagnosed with a stroke.

**Herefordshire and Worcestershire Health and Care NHS Trust (HWHACT)** - HWHACT provide the community hospitals across Worcestershire and mental health services across Herefordshire and Worcestershire.

**Powys Teaching Health Board (THB)** – one of seven THBs across Wales. THBs are responsible for planning, commissioning and providing local health services to address local needs.

**Thrombolysis** - also known as thrombolytic therapy, is a treatment to dissolve dangerous clots in blood vessels, improve blood flow, and prevent damage to tissues and organs. For most people, thrombolysis needs to be given within four and a half hours of the stroke symptoms starting. In some circumstances, however, it could still be of benefit within six hours but the more time that passes, the less effective thrombolysis will be.

**Thrombectomy** - a treatment that physically removes a clot from the brain. It usually involves inserting a mesh device into an artery in the groin, moving it up to the brain,

and pulling the clot out. It only works with people where the blood clot is in a large artery. Like thrombolysis, it has to be carried out within hours of a stroke starting. Only a small proportion of stroke cases are eligible for thrombectomy, but it can have a big impact on those people by reducing disability. This procedure is only available at a certain number of stroke centres and the most local one to our area is at University Hospital Birmingham.

**TIA** - transient ischaemic attack or 'mini stroke'.

**University Hospitals Birmingham NHS Foundation Trust (UHBFT)** – delivers thrombectomy services to patients from Herefordshire and Worcestershire.

**Worcestershire Acute Hospitals NHS Trust (WAHT)** – runs Worcestershire Royal Hospital (WRH).

**Wye Valley NHS Trust (WVT)** – runs Herefordshire County Hospital (HCH), community hospitals and the community-based stroke specialist rehabilitation team across Herefordshire.

**Welsh Ambulance Service NHS Trust (WAST)** – Provider of Emergency Medical Services (EMS), NHS111 and Ambulance Care Services (formally known as Non-emergency Patient Transport) across Wales

**West Midlands Ambulance Service University Foundation Trust (WMAS) –** The West Midlands emergency ambulance service and NHS 111 provider.

# Summary

### Challenges in Herefordshire and Worcestershire

Herefordshire and Worcestershire Integrated Care System (ICS) (all health and care partners working together) provides health and care services to over 806,000 residents including some services for around 40,000 people living in Powys, a neighbouring county in Wales.

Our healthcare teams work hard to provide high quality care, and our ambition is to continue and sustain this into the future. Across Herefordshire and Worcestershire there are several challenges in providing this including workforce, specifically the recruitment of key clinical staff with the specialist stroke skills, and consequently our ability to be able to provide 7-day a week services. By considering re-organising our services we can give everyone the best opportunity to survive and thrive after a stroke.

### Potential Solutions

Across the ICS we have been working with partners to consider the sustainability of stroke services. Several potential solutions or options have been considered. Our clinicians have identified a preferred way to deliver stroke services and that is to centralise hyper-acute and acute stroke services on one site as this will enable us to deliver a 7-day service in line with national clinical and quality standards, thereby ensuring we are able to meet the needs of patients by providing the best quality of care.

### Have your say

We want to hear what you think about stroke services and the issues discussed in this paper. We will be engaging on this during September-October 2022.

After reading this paper we would like you to consider the following:

1. Do you think we have raised and explained all of the issues and challenges that may be associated with improving stroke services across Herefordshire and Worcestershire? If not, what do you think we have missed?
2. Have we considered all the potential solutions for improving stroke services? If not, what else should we consider?
3. When thinking about stroke services, is there anything we could be doing to support the prevention of stroke? If yes, please tell us what else we should consider.
4. Do you have any further feedback or comments?
5. Would you like to be involved in future stroke services engagement?

# Our system

There are 42 Integrated Care Systems (ICSs) in England, ranging in population sizes from 500,000 to 3 million. Herefordshire and Worcestershire ICS is one of the smallest in the country, providing health and care services to over 806,000 residents including some services for around 40,000 people living in Powys, a neighbouring county in Wales.

Our system is sparsely populated, covering 1,500 square miles with significant rural areas, bringing challenges for travel and access to services for some citizens, as well as being a low wage economy and limited social mobility. This is in the context of a relatively high, and increasing, proportion of our population aged over 65, when compared with regional and national figures.

In addition, Powys is the most sparsely populated county in England and Wales, also with significant challenges for travel and accessing services, and a population profile that is older than UK and Welsh averages.

We know that access to and outcomes from health and care services are not experienced equally across our population. Addressing this is core to our strategic priorities.

# What is a stroke?

A stroke is a life-threatening medical condition that occurs when the blood supply to the brain is cut off, either from a clot or if a blood vessel in the brain bursts (also known as a haemorrhage).

Stroke is a life-changing event, and a leading cause of death and disability in the UK. It can affect people of all ages and has significant, long-term impacts. Stroke is a serious condition and is the fourth biggest killer in the UK.

In 2021-22, around 1,200 people in Herefordshire and Worcestershire, and a further 150 people in Powys, were admitted to hospital following a stroke. That's around three people each day. That number is set to rise as the population continues to grow, people live longer and the number of people living with long term conditions such as raised blood pressure, high cholesterol and diabetes increases.

Thanks to a combination of better prevention, and earlier and more advanced emergency treatment and care within 72 hours of having a stroke, many people are surviving and making a good recovery. There are also things we could do differently to give everyone in our area the best opportunity to survive and thrive after a stroke.

We not only want to support those who have a TIA or stroke, but also work to prevent people experiencing them. Around 90% of strokes are preventable[2] and the best way to help prevent a stroke is to eat a healthy diet, exercise regularly, and avoid smoking and drinking too much alcohol. These lifestyle changes can reduce the risk of developing problems like: arteries becoming clogged with fatty substances (atherosclerosis), heart conditions that cause irregular heartbeats (atrial fibrillation) and high blood pressure (hypertension).

As well as these lifestyle changes, medicines can be used to effectively treat certain conditions such as atrial fibrillation (AF) as people with AF are five times more likely to have a stroke. We are therefore working with our GP practices to reduce the number of people with undiagnosed AF and ensure they are effectively treated.

We continue to work with our health and social care partners around prevention and reducing the impact of inequalities on patient outcomes of stroke and TIA. This includes improving access to smoking cessation and weight management services, proactively identifying and treating conditions such as AF and high blood pressure in primary care, as well as optimisation of NHS Health Checks.

[2] www.stroke.org.uk

# How do we currently care for people who have had a stroke in our area?

**Table 1**. Five stages in the national stroke pathway:

| Stage | 1<br>Prevention | 2<br>Emergency treatment | 3<br>Ongoing acute hospital treatment and care | 4<br>Inpatient rehabilitation | 5<br>Community care and life after stroke |
|---|---|---|---|---|---|
| **Detail** | Focuses on reducing factors that put people at risk of having a stroke, like high blood pressure. | For people with a suspected stroke or immediately after a stroke, where people have surgery if needed. | With specialist staff who are experts in stroke and supporting people until they are well enough to move to the next stage of care. | On a hospital site or in the community for those who need additional specialist treatment and rehabilitation. | Ongoing treatment and care can be provided at home (or a care home) and a variety of community-based local facilities, such as physio centres, gyms or community hubs, depending on the support required. |
| **Services** | Smoking cessation services (support and treatment).<br>Weight management.<br>Identification and management of AF, hypertension and Chronic Kidney Disease, in primary care. | Hyper Acute Stroke Unit (HASU) for the first 72 hours of care. | Acute Stroke Unit (ASU) for patients after 72 hours of admission. | In-patient stroke specialist rehabilitation unit, providing specialist stroke rehabilitation for patients unable to return to their normal place of residence. | Community Stroke Rehabilitation (CSR) is an inter-disciplinary team who provide community rehabilitation. This includes early supported discharge (ESD). |

In Herefordshire and Worcestershire, stroke services are provided by Worcestershire Acute Hospitals NHS Trust, Wye Valley NHS Trust and Herefordshire and Worcestershire Health and Care NHS Trust:

- Worcestershire Acute Hospitals NHS Trust (WAHT) – provides Hyper Acute and Acute Stroke Services and TIA clinics at the Worcestershire Royal Hospital;

- Wye Valley NHS Trust (WVT) – provides of Hyper Acute and Acute Stroke Services, TIA clinics, in-patient stroke specialist rehabilitation (all at Herefordshire County Hospital) and the Community Stroke Service (including Early Supported Discharge) countywide;
- Herefordshire and Worcestershire Health and Care NHS Trust (HWHCT) – provider of Community in-patient stroke specialist rehabilitation at Evesham Community Hospital and Community Stroke Service (including Early Supported Discharge) countywide;
- Residents of Powys receive a wide range of services close to home from Powys Teaching Health Board (PTHB), including in-patient stroke specialist rehabilitation at Breconshire War Memorial Hospital and community stroke services (including Early Supported Discharge).

The Stroke Association is also commissioned as part of the Worcestershire stroke rehabilitation offer to patients and provides communication and holistic support to stroke survivors and their carers.

In 2021-22, approximately 70% of people in Worcestershire who had a stroke were admitted to Worcestershire Royal Hospital (WRH). Around 96% of people in Herefordshire and c. 35% people in Powys who had a stroke were admitted to Hereford County Hospital (HCH).

Patients from Herefordshire and Worcestershire also accessed acute stroke services outside of the area including University Hospitals Birmingham NHS Trust[3] (Worcestershire and Herefordshire patients) (4.4%), Gloucestershire Hospitals NHS Foundation Trust (1.1%) and Dudley Group of Hospitals NHS Trust (2.1%).

Patients from other parts of Powys will receive their acute stroke services from other neighbouring hospitals including The Shrewsbury and Telford Hospital NHS Trust, Bronglais Hospital (Hywel Dda University Health Board), Prince Charles Hospital (Cwm Taf Morgannwg University Health Board) and Morriston Hospital (Swansea Bay University Health Board).

The proposals in this engagement relate to the stroke pathway to hospitals in Herefordshire and Worcestershire and do not directly affect stroke pathways to other hospitals outside of the area.

The majority of stroke patients admitted to Worcestershire Royal Hospital and Hereford County Hospital are from Herefordshire and Worcestershire (WRH 92.6% and HCH 92.8%), with a small number of admissions to HCH from patients outside of the county boundaries, including Powys (56 average admissions to HCH per year).

When someone experiences a stroke or TIA, there are a number of clinicians and allied health professionals who may, at different times of the pathway, be involved in their diagnosis, treatment, rehabilitation and longer-term support. These can include:

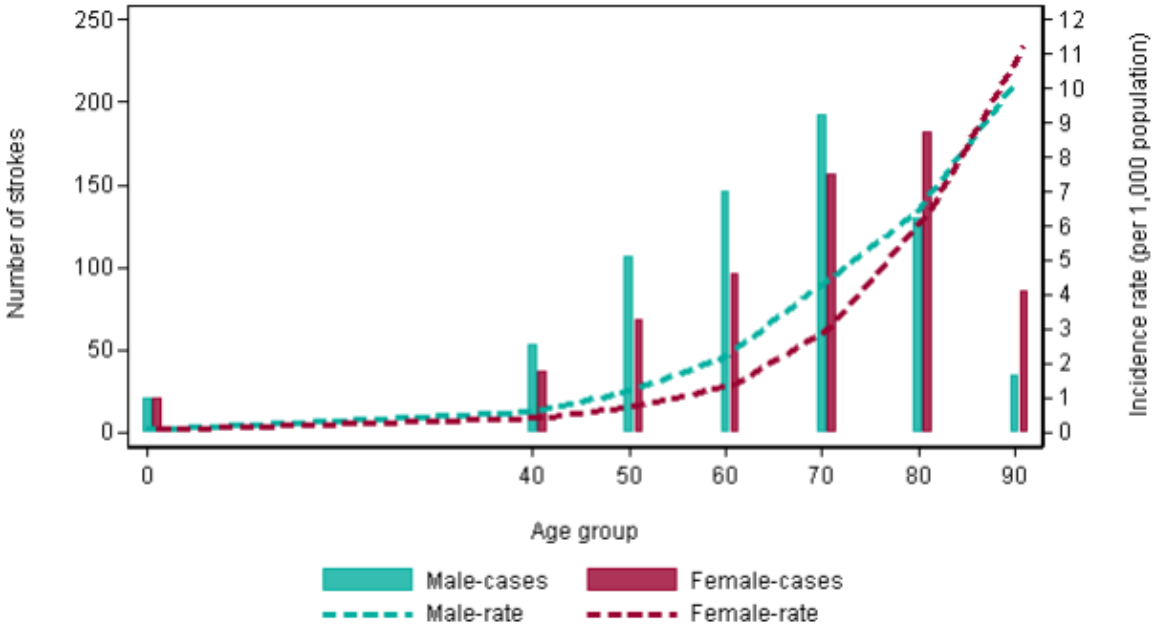
[3] University Hospitals Birmingham NHS FT is the designated Comprehensive Stroke Centre for Herefordshire and Worcestershire providing access to thrombectomy.

- GPs
- Paramedics
- Specialist stroke consultants
- Specialist stroke nurses
- Psychologists
- Physiotherapists
- Occupational therapists
- Speech and language therapists
- Dieticians
- Pharmacists
- Social workers

# Outlining a compelling case for change

More people are at risk of having a stroke because our population is growing, getting older and living with more long-term health conditions. The graph below shows how the incidence of stroke increases as we get older for the reasons outlined above, most significantly after the age of 60 years.

**Diagram 1: Number of strokes and age-specific rates per 1,000 population, by gender, 2016 (Stroke Incident Briefing Document 2018).**




Our healthcare teams work hard to provide high quality care to stroke and TIA patients at every stage of the pathway to ensure the best possible clinical outcome for that patient. Across Herefordshire and Worcestershire there are however several challenges in doing this, especially at stages two and three of the stroke pathway (emergency treatment and ongoing acute hospital treatment and care), including the ability to recruit the staff with the specialist stroke skills required to ensure timely assessment, investigation and treatment of patients with a suspected stroke over 7-day services. By considering re-organising our services we can give everyone the best opportunity to survive and thrive after a stroke.

- **We could save more lives and help more people live well after stroke**. The evidence shows that prompt access to assessment, investigation and time critical treatments followed by admission to a dedicated, centralised stroke unit (as mentioned in the NHS Long Term Plan and also known as a Hyper-Acute Stroke Unit or HASU), improves outcomes for people following a stroke, enabling them to go home quicker and go on living fuller lives.
- **Everyone could have access to our specialist teams and treatments 24 hours a day, 7 days a week.** This would happen regardless of where people live, or when they require treatment and care.

- **We could meet the National Standards for Stroke Care.** Increasingly, there are new and specialised treatments to reduce brain damage and disability after a stroke. These require highly skilled staff and the latest technology and services. As our expertise is currently spread over two sites, we're unable to offer 7-day access to this level of service at both hospital sites. The UK national audit programme grades our hospitals between B and D at the moment, with A being the best grade. We want to change this and improve the quality of care for everyone in our area

**Issues we think will be important to patients and their families in our area:**

As part of this work, there are a number of other important considerations for our patients and their families and carers, these include:

- Ease and distance of travel: we have a wide geography and it can take a long time to travel across Herefordshire, Worcestershire and Powys. Public transport is not always available, and not everyone has access to their own vehicle. We also recognise that not everyone will have family and/or close relatives living near them and therefore may be reliant on other members of the community and/or services to enable them to travel to hospitals/other healthcare settings, and that families and carers will want to visit their loved ones in hospital.
- Impact on deprived communities: even if transport is available, not everyone can afford it. Wider factors of deprivation, for example, poor housing and education can also affect a person's health and wellbeing and contribute to the risk factors of stroke.
- Working with other health and social care systems: especially when a patient is discharged, or will receive rehabilitation services elsewhere, the communication with other health and social care services needs to be clear, timely and enable a smooth transition.

**National guidelines and documents**

As part of the wider National Health Service the services we provide in our area must meet national and regional guidelines to ensure we are offering the best clinical quality and safety for our patients. These include the 2016 National Clinical Guidelines for Stroke, Stroke NHS Toolkit, West Midlands Regional Service Specification, and the West Midlands Thrombectomy Clinical Guidelines (2019).

**Table 2** below shows key standards from these documents, and our current service provision:

| **Standard** | **Our service** |
|---|---|
| Thrombolysis within 60 minutes of admission (includes scanning time as per optimal stroke imaging pathway of CT within 20 mins and MRI within one hour (only for very mild strokes or where diagnosis is difficult). | We do not currently achieve this standard for all patients. There are a number of reasons for this including demand in our emergency departments, timely access to a stroke specialist to |

| | |
|---|---|
| | advise regarding diagnosis and treatment and access to CT/MRI. |
| 24/7 access to thrombolysis. | This is in place at both hospital sites. During the day (Monday – Friday at HCH and Monday – Sunday at WRH) this is provided on site. Out of hours (weekday evenings, weekends and Bank Holidays), it is provided through the Southwest Thrombolysis Network[4]. |
| 24/7 access to thrombectomy | This is available at University Hospital Birmingham but is reliant on diagnosis and referral in Herefordshire and Worcestershire, and then transfer to UHB for treatment within the time window. |
| 7-day services which includes twice daily ward rounds in HASU and once daily rounds in ASU. | This is currently being delivered at the WRH site.<br>At HCH this is currently being delivered by locum staff over 5-days (Monday – Friday) with access to a consultant remotely (mornings only) at the weekend.<br>To deliver sustainable 7-day services on two acute hospital sites, in line with national clinical and quality standards, a minimum of 12 stroke specialist consultants would be required. There is currently a national shortage of stroke consultants and most stroke units have vacant posts they are unable to fill. This includes both stroke units in Herefordshire and Worcestershire and given the recruitment issues outlined, it is unlikely that we will be able to recruit enough stroke consultants to maintain sustainable 7-day services across both sites. |

[4] The Southwest Thrombolysis Network provides remote access to a stroke consultant to support thrombolysis decision-making. The consultant will remotely review the CT/MRI and advise regarding whether the patient is suitable for thrombolysis.

To summarise, the case for change for stroke and TIA services across the ICS can be outlined as follows:

- We do not have enough permanent stroke specialist consultants required to achieve the national clinical standards for stroke at either of the hyper acute and acute stroke units at Herefordshire County Hospital and Worcestershire Royal Hospital. To be compliant with 7-day national clinical and quality stroke standards, we would require a minimum of 12 consultants.
- We have been unable to recruit the number of stroke consultants required to deliver 7-day services across both sites, despite sustained and innovative efforts to do so. There is a national shortage of these roles and most acute stroke units across the country are currently carrying some vacancies resulting in an ongoing reliance on locum or agency staffing.
- We continue to rely on support from outside of Herefordshire and Worcestershire to ensure we have access to stroke specialist consultants over 7-days. Given the pressures on stroke services elsewhere, this is not sustainable and will require us to consider alternative and more sustainable service models to ensure access to services for our patients.

Though the service is currently being provided, it could be better for patients if we could ensure 7-day access to a stroke specialist consultant led service. This would enable us to do the following:

- Deliver more stroke specialist services within the ICS ourselves, thereby reducing our reliance on other areas to support us.
- Ensure we have local access to stroke specialist consultants to support other areas of the stroke pathway such as rehabilitation.
- Provide the opportunity to potentially develop the services we have locally for stroke and TIA, allowing us to embrace new technologies, treatments and interventions if we can create a sustainable and high-quality service for the ICS.
- Improve pathways between ourselves and stroke specialist centres that offer specialist treatments, thereby improving outcomes for our patients.

We believe there is a strong case for change to the way we deliver our hyper-acute and acute stroke services for the patients who need our services as outlined above.

# Developing potential solutions

To find solutions to our challenges, we have looked at a variety of ways we could address these. These have been considered with partners at the ICS Stroke Programme Board, the members of which include:

- NHS Herefordshire and Worcestershire ICB
- Worcestershire Acute Hospitals NHS Trust
- Wye Valley NHS Trust
- West Midlands Ambulance Service University NHS Foundation Trust
- Welsh Ambulance Service NHS Trust
- Powys Teaching Health Board
- Herefordshire and Worcestershire Health and Care NHS Trust
- Stroke Association
- A patient representative
- Healthwatch Herefordshire (observer)
- Healthwatch Worcestershire (observer)
- Powys Community Health Council (observer)

We have explored how we can meet the national guidelines across all organisations and sustain this level of service into the future. This work has been in development since 2017 but was paused in early 2020.

**The journey so far:**

In 2018 we undertook an exercise to start to develop potential solutions to address the issues we have at stages 2 and 3 of the stroke pathway (see Table 1 on page 9 - emergency treatment and ongoing acute hospital treatment and care). These four ideas are described in Table 3 below.

Staff and patient feedback was gathered on their experiences of stroke services, and these potential solutions. Further modelling, workforce planning and travel assessments were conducted.

The above potential options were assessed against a set of high-level criteria including:

- Quality - Ability to offer services in line with clinical standards;
- Deliverability - Workforce required to deliver 7-day services;
- Accessibility - Local access to services, travel times, impact on carers/relatives, impact on cross border patients;
- Strategic fit - Inter-dependencies with other services for example diagnostics and other acute medical services.

In 2020 the global pandemic halted the development of this work as resources were directed into other areas. This has also altered how patients access some health services and technology has become an essential tool in improving access to and

delivery of health care services. Clinical work restarted in 2021/22 around improving stroke services across the two counties, focusing on potential solution 4 (one central location for Hyper Acute and Acute Stroke services). During this time, work has continued through the ICS Stroke Programme Board to maintain existing services and to improve service delivery where possible. This includes work around improving the pathways to accessing acute and stroke specialist rehabilitation services in line with national clinical standards. The ICS has invested to increase capacity in early supported stroke discharge services to enable more patients to receive their rehabilitation at home.

In the last two years, Integrated Stroke Delivery Networks and Regional Stroke Boards have also been established. These networks are in place to ensure high quality and accessible stroke services are delivered to people across the West Midlands. The networks themselves are also leading on a number of regional developments to support the modernisation of stroke services to improve outcomes for patients, including:

- Use of telemedicine and Artificial Intelligence (AI) to support remote decision-making for thrombolysis and thrombectomy;
- Standardisation of pre-alert pathways across the region, leading to improvements in the identification and management of suspected stroke patients;
- Use of video triaging in ambulances to enable hospital-based stroke specialists to visualise the patient and make decisions around the management of the patient;
- Standardisation of stroke rehabilitation ensuring all stroke patients have access to the services they require to enable them to optimise their rehabilitation potential;
- Workforce development of specialist stroke roles including consultant roles, specialist nurse and therapist roles and Advanced Care Practitioners.

We want to hear more views on this to ensure that we have considered all the issues and potential solutions.

**Table 3:** Potential solutions for Acute and Hyper-Acute stroke services

| Potential Solution | Hyper Acute Stroke Unit (HASU) | Acute Stroke Unit (ASU) |
|---|---|---|
| 1 – no change to current service | 7-day units on two sites - Herefordshire County Hospital (HCH) and Worcestershire Royal Hospital (WRH). Not 24/7 specialist stroke consultant cover. | 7-day units on two sites - Herefordshire County Hospital (HCH) and Worcestershire Royal Hospital (WRH). Not 24/7 specialist stroke consultant cover. |
| 2 | 7-day unit at one site. | 7-day units at two sites. |
| 3 | No HASU unit on HCH or WRH sites – HASU site outside of Herefordshire and Worcestershire. | No ASU unit on HCH or WRH sites – ASU site outside of Herefordshire and Worcestershire. |
| 4 | 24/7day unit on one site with stroke specialist consultant cover - potentially WRH | 24/7day unit on one site with stroke specialist consultant cover - potentially WRH |

**Potential solution 1** (no change, continuing the service as it is)

This was not considered to be sustainable longer term, largely because of the challenges we have had and continue to experience around recruitment to stroke consultant posts. With these ongoing difficulties we are unable to deliver robust and sustainable 7-day stroke specialist consultant led services across the ICS.

**Potential solution 2**

This solution was not developed any further as it scored lowest against the above criteria. This would not reduce our reliance on the number of stroke specialist consultants required to deliver 7-day services in line with national clinical and quality standards and did not offer an alternative to solution 1.

**Potential solution 3**

This solution was not developed any further as it scored lowest against the above criteria. Feedback received from the West Midlands Cardiovascular Strategic Clinical Network (WMCVCN) at the time did not consider this service model as viable for the following reasons:

- Insufficient HASU capacity outside of Herefordshire and Worcestershire - Note from West Midlands Cardiovascular Clinical Network (WMCVCN) Expert Advisory Group meeting held on 25/04/2017:

*"A discussion followed to include UHB and UHCW who agreed that it was not viable due to capacity by either hospital".*

- Excessive travel times for patients, particularly from Herefordshire and South Powys to UHBT/UHCW. Analysis of the travel times to the HASU and ASU sites outside of Herefordshire and Worcestershire confirmed this would potentially exclude a significant number of patients from being eligible for time critical interventions such as thrombolysis.

**Potential solution 4**

This potential solution would concentrate the Hyper Acute and Acute Stroke Unit on one site. This potentially identified as Worcestershire Royal Hospital, as part of existing plans to improve the emergency department, and development of a specialised intervention unit for cardiac and potentially stroke patients.

Patients with a suspected stroke will be taken to their closest hospital, which for the majority of patients from Powys and Herefordshire will be Herefordshire County Hospital. Here they will be triaged (assessed) by a stroke specialist, treated (if appropriate) and if a confirmed stroke, transferred and admitted directly to the Hyper Acute Stroke Unit at Worcestershire Royal Hospital. This ensures patients continue to have timely access to time critical assessment and interventions such as thrombolysis. In a small number of cases, some patients may be taken directly to the WRH site, if for example the patient is assessed by the ambulance service, in conjunction with the stroke team at Worcestershire Royal Hospital (WRH) that the patient is unlikely to benefit from time critical interventions such as thrombolysis and need to be admitted directly to a Hyper Acute Stroke Unit.

All other suspected strokes will be taken directly to the Worcestershire Royal Hospital (WRH) site and taken to a stroke assessment area for initial assessment, investigation and treatment.

On discharge, patients will receive their ongoing stroke specialist rehabilitation in their respective county. This includes in-patient rehabilitation at a designated in-patient unit or through the community stroke rehabilitation service, which offers specialist stroke rehabilitation in the patient's own home. A high-level potential solution and stroke pathway is shown below, in **Diagrams 3 and 4**:

**Diagram 2: Stroke pathway - Herefordshire / Powys patients where Herefordshire County Hospital is the nearest imaging centre**

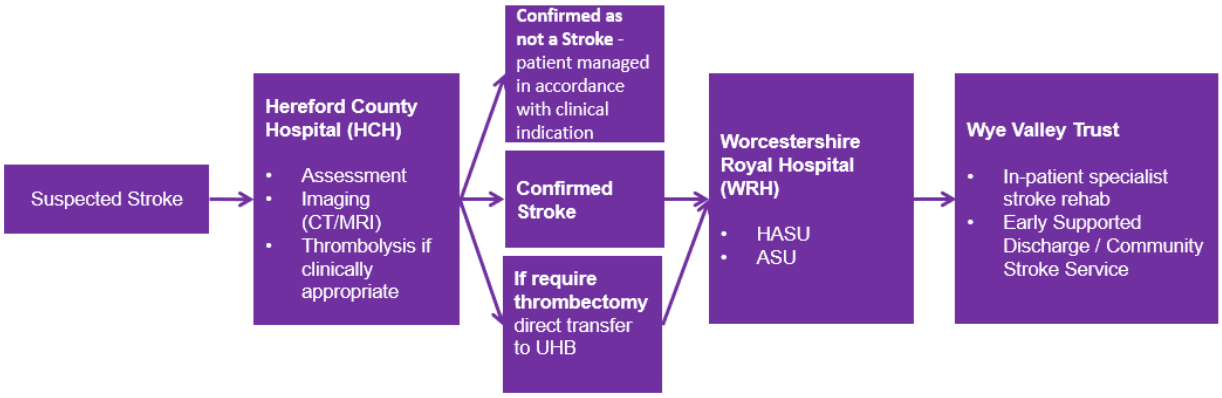
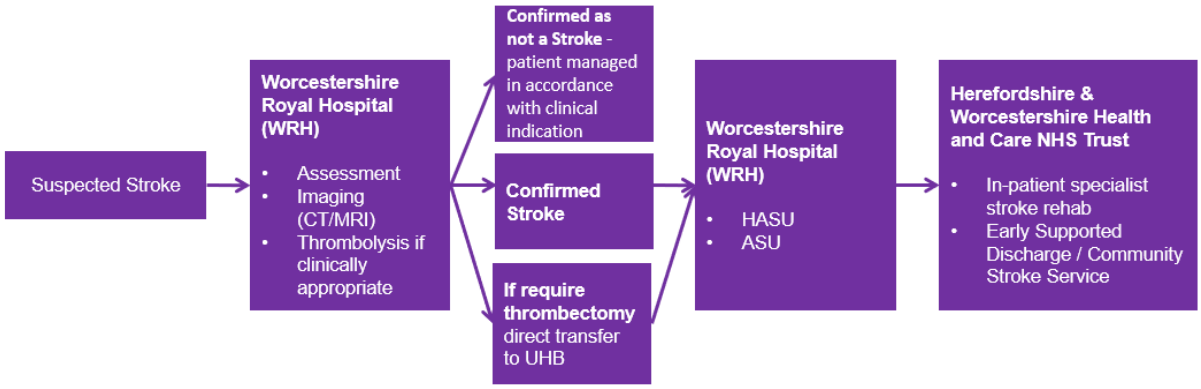



**Diagram 3: Stroke pathway - Worcestershire and Herefordshire patients where Worcestershire Royal Hospital is the nearest imaging centre:**




Some of the positive and negatives of this option are summarised below (**Table 4**):

| Pros | Cons |
|---|---|
| Workforce will be concentrated in one unit rather than spread over two. To deliver 7-day services across both sites, we will require a minimum of 12 stroke consultants. There is currently a national shortage of these roles and most acute stroke units have vacant posts, making recruitment much more difficult for smaller units such as the ones in WRH and HCH. | Whilst initial assessment, investigation and treatment of patients will be undertaken at their closest imaging centre (i.e. HCH), patients from Powys and Herefordshire who are confirmed as a stroke will receive their ongoing acute specialist stroke care at a unit further away from their homes than currently, with an impact on travel for their relatives and carers. |
| Consolidation and development of the workforce on one site will enable us to deliver 7-day services including out of | Workplace location may need to change or flex |

| | |
|---|---|
| hours cover, ensuring 24-hour access to local stroke specialists. This model also has the potential to develop the treatments and services we can offer our patients. | |
| Removes the need for an out of hours arrangement for accessing a stroke specialist remotely to support thrombolysis/thrombectomy decision as this would be provided locally through the consolidated workforce. | Need for secondary journey for Powys and Herefordshire patients initially taken to HCH, so they can receive specialist stroke care at WRH. In some cases it may be clinically appropriate for the patient to be directly taken to WRH. |
| Continued access to local assessment, investigation, and time critical interventions, with access to remote/on-site stroke specialist support. | Longer journey time for Powys and Herefordshire patients to return home following acute management of their stroke at WRH. |
| Stroke specialist rehabilitation (in-patient and home based) and access to TIA/Follow-up clinics will continue to be delivered as close to home as possible. | |
| Improved resilience (clinical safety and service delivery/continuity) in the event of a change/disruption in the workforce (short or long term). | |

# What have patients and the public told us so far?

We gathered the previous patient feedback from a variety of sources into a Patient Feedback Paper in January 2022. This was to ensure that the patient perspective was considered at the solutions development stage by clinicians.

The paper is available on our website https://www.hwics.org.uk/get-involved/involvement-opportunities/stroke-services

# What happens next?

We want to reflect on stroke services, and the journey so far, and ask patients and stakeholders for their views.

As part of this reflection, we will also be reviewing key project documents such as the transport modelling, population modelling, workforce planning and the Equality Impact Assessment.

We will then work with people, communities and stakeholders to reassess the options and this will include consideration of the location of services and the impact on other areas of the pathway including rehabilitation.

This work will be considered by the Stroke Programme Board before taking any potential solutions to the next stages of NHS governance and onwards through the service change process.

# Have your say

We want to hear what you think about stroke services and the issues discussed in this paper. The engagement period will be open from 19 September 2022 to 11 November 2022.

After reading the information in this paper, we would like to know what you think about the following:

1. Do you think we have raised and explained all of the issues and challenges that may be associated with improving stroke services across Herefordshire and Worcestershire? If not, what do you think we have missed?
2. Have we considered all the potential solutions for improving stroke services? If not, what else should we consider?
3. When thinking about stroke services, is there anything we could be doing to support the prevention of stroke? If yes, please tell us what else we should consider.
4. Do you have any further feedback or comments?
5. Would you like to be involved in future stroke services engagement?

Please do tell us your views by using the survey link:
https://www.surveymonkey.co.uk/r/strokeservices2022

Or if you can email us on hw.engage@nhs.net or call 0330 053 4356 and ask for the engagement team.

This document is available in Welsh and Easy Read on our website or if you would like it in another language or format please contact hw.engage@nhs.net

More information is available on our webpage: https://www.hwics.org.uk/get-involved/involvement-opportunities/stroke-services

# References and further information

Long Term Plan - https://www.longtermplan.nhs.uk/

National Guidance - SSNAP - Guideline Home (strokeaudit.org)

Stroke Incidence Briefing Document - https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/678444/Stroke_incidence_briefing_document_2018.pdf