



Department of  
**Health**

An Roinn Sláinte

Mánnystrie O Poustie

[www.health-ni.gov.uk](http://www.health-ni.gov.uk)

# RESHAPING STROKE CARE

**SAVING LIVES, REDUCING DISABILITY**

Consultation Document



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## GLOSSARY

**Acute stroke units** - These are dedicated hospital wards used for stroke patients and they require specially trained medical, nursing and therapeutic staff. They provide care and rehabilitation until a person is ready to go home. This is normally from the third day after stroke until discharge to the community.

**Early Supported Discharge (ESD)** - This is a service provided by Community Stroke Teams. It responds quickly after discharge to continue rehabilitation and support, for those who no longer require hospital services. It should provide therapy at the same intensity as it would have been provided in hospital.

**Hyperacute stroke units** - This is the phase of care, usually during the first three days, in which a patient is assessed and admitted. Hyperacute stroke units require highly skilled staff, with access to advanced imaging equipment 24 hours a day, seven days a week.

**Stroke** - A condition caused by impaired blood flow to the brain following a blood clot or a bleed in the brain. Impairments in movement, balance, speech, vision or thinking may result.

**Stroke Services National Audit Programme (SSNAP)** - SSNAP measures the quality and organisation of stroke care in the NHS and is the single source of stroke data in England, Wales, and Northern Ireland. SSNAP measures both the processes of care provided to stroke patients, and the structure of stroke services (organisational audit) against evidence based standards.

**Thrombolysis** - Also known as clot busting therapy, this is a medicine which is delivered by an intravenous drip to stroke patients within four and a half hours of the first symptoms of stroke.

**Thrombectomy or Clot Removal** - A procedure performed by skilled doctors to remove large clots from blood vessels in the brain, usually within six hours of the onset of stroke.

**Transient Ischaemic Attack (TIA)** - A diagnosis given to some patients where there are temporary symptoms similar to a stroke but that resolve within 24 hours.

# FOREWORD

by the Permanent Secretary

Stroke is one of the most devastating health crises anyone can face. And the reality is that, today, the service we provide for those impacted by this is not as good as it could or should be. Put simply, our current model fails users of this service.

In determining how we improve this, we need to be clear that this issue is much more complex than the location of services - while travel time is clearly a consideration, a much more important one is the quality and expertise of the service patients travel to. Currently, stroke services are too thinly spread, and too many units are struggling to maintain sustainable quality care and staffing levels.

The evidence couldn't be clearer - consolidating hospital services into hyperacute stroke units means better care and better outcomes for patients:

- \* Thrombectomy - the revolutionary stroke treatment involving mechanical retrieval of a clot from the brain - can be available round the clock seven days a week in Northern Ireland (NI) for the first time.
- \* Thrombolysis - the clot busting drug - can be administered to more patients more quickly by trained staff in dedicated centres of excellence.
- \* Patients suffering from TIAs - Transient Ischaemic Attack or mini strokes - can have access to TIA clinics 7 days a week, providing specialist assessment within 24 hours of symptoms. Better and more focused care will reduce their risk of full-blown strokes.

This consultation represents the start of a once-in-a-generation opportunity to make stroke care better. By better, I am not focussing on improved processes or access to care, but on patient outcomes - saving lives, significantly reducing long-term disability and taking major steps forward in stroke prevention.

These goals are all within our grasp. But to achieve them we must re-shape current provision to establish a number of Hyperacute Stroke Units. These Units will be suitably staffed, with expert teams on the spot 24 hours a day, seven days a week, ensuring stroke patients have ready access to the latest in diagnostic testing and treatment. These specialist centres will secure improved stroke outcomes, higher patient satisfaction levels and shorter hospital stays.

And, crucially, staff will have increased opportunities to maintain and build their expertise and experience. Only by having higher volumes of patients will that be possible.

Of course, I recognise that change is never easy, and there is a lot to think about – with six different options on the way forward. But it starts with the inescapable premise that change is needed.

We cannot ignore the evidence – consolidating care and expertise will save lives and reduce disability, and maintaining the status quo is simply not good enough.

We can and must do better.

**Richard Pengelly**

Permanent Secretary,  
Department of Health



# INTRODUCTION

## What is a stroke?

A stroke occurs when blood supply to part of the brain is interrupted by either a blood clot or a bleed, and surrounding brain tissue is damaged or dies.

There are two main types of stroke:

- Ischaemic, caused by a clot blocking or narrowing an artery carrying blood to the brain. Ischaemic strokes are the most common; and
- Haemorrhagic strokes, caused when a blood vessel supplying the brain bursts.

## What is the impact of stroke?

Stroke is the single largest cause of adult disability in the UK, the fourth largest cause of death, and two thirds of those who survive stroke have a life changing disability.

Stroke is a major health issue in NI with around 2,800 people being admitted to hospital each year and 36,000 stroke survivors living in our communities. It is important that every opportunity is taken to secure excellent care for people after a stroke and give them the best possible chance of a good recovery.

The number of people in NI experiencing stroke each year is likely to increase in future because of a growing older population, with three out of four people who experience stroke being over the age of 65.





## RESHAPING STROKE SERVICES

In 2017, the Health and Social Care Board and the Public Health Agency carried out a pre-consultation seeking views on a range of proposals to reshape stroke services. Over 800 responses, together with a further 3,000 template responses were received.

Those responses indicated high levels of support for some of the proposals but also significant levels of concern about the impact that implementation of some of the changes may have. A number of the responses to the pre-consultation focused on the potential impact on travel times for patients, their carers, and their families, particularly for those living in more rural areas.

In response to those views, the University of Calgary and the University of Exeter were commissioned to undertake modelling to provide a robust evidence base on the impact of reshaping hospital-based stroke services, including on travel time and clinical outcomes. We explore this further later in the document.

We also outline other actions taken to date, including investment in Early Supported Discharge and plans to expand the availability of thrombectomy.

This document, which follows on from the pre-consultation, is the next stage in a long term process to improve stroke services in NI. Services across NI have been improving in recent years, but there is still significant variation across sites in terms of the time patients are seen and the treatment they access.

# EXECUTIVE SUMMARY

Stroke is a major health issue in NI with around 2,800 people being admitted to a hospital each year and 36,000 stroke survivors living in our communities. It is important that every opportunity is taken to secure excellent care for people after a stroke and give them the best possible chance of a good recovery.

The impact of stroke can be devastating. While there are treatments which can help deliver significantly improved outcomes, stroke patients in NI do not always get access to the optimum treatment:

- TIA clinics are only available 5 days per week, yet we know that people should receive specialist assessment within 24 hours of symptoms occurring because of the risk of stroke;
- There are variations in the length of time taken to provide thrombolysis to stroke patients when we know that thrombolysis is more effective the earlier it is given;
- Thrombectomy is only available from Monday – Friday 08.30am – 5.30pm which means that not all those who could potentially benefit have access to the treatment;
- Research undertaken by the Stroke Association indicates that the needs of stroke survivors in the community, including emotional and cognitive needs and support for family carers, are not being met.

Services across NI have been improving in recent years, but there is still significant variation across sites in terms of the time patients are seen and the treatment they access. We know that there are steps we can take to strengthen these services and we outline a number of commitments about how we intend to do so.

But, if we are to fully deliver on the potential to improve stroke care, we need to look beyond individual services to consider how and where services are provided.

The single most important factor in delivering better outcomes for stroke patients is the quality of care provided in a stroke unit. Evidence ranging from RQIA reports to audits of performance carried out by the Royal College of Physicians (RCP) and London School of Economics demonstrate that services are falling short. For example, only 40% of stroke patients are admitted to a stroke ward within 4 hours.



Guidance from the RCP and the National Institute for Health and Care Excellence (NICE) recommend that services should be provided in a hyperacute setting in the first few days after a stroke. The services provided in a hyperacute stroke unit are only available to a minority of patients in NI and the treatment available varies significantly depending on location and time of admission. This document proposes that a network of Hyperacute Stroke Units (HASUs) and Acute Stroke Units (ASUs) should be established in NI. This would mean that some patients will go to their nearest Hyperacute Stroke Unit first to get rapid assessment and clot busting therapy, with transfer to the regional thrombectomy centre in Belfast where appropriate. Other patients would go directly to Belfast, bypassing their nearest hospitals

In order to make this work, it is essential that each stroke service has the specialist staff and facilities to provide rapid brain imaging and treatment on a 24/7 basis so that there are no delays identifying and transferring those patients who require thrombectomy.

This document contains six options for reshaping the current configuration of stroke services and seven commitments for developing stroke care that will be necessary to underpin and support any new model. Each of the options involves consolidating services into a smaller number of centres where patients will be able to access Hyperacute Stroke Care 24 hours a day, 7 days a week.

As part of this work, we commissioned the University of Calgary and the University of Exeter to undertake modelling to provide a robust evidence base on the impact of reshaping hospital-based stroke services, including on travel time and clinical outcomes. It is worth highlighting that, according to this modelling, each of the options considered in this document would offer significantly improved outcomes for patients compared with the way services are currently provided in hospitals.

There are significant challenges within the stroke workforce. We know that there is a challenge in developing and maintaining skills with some hospitals seeing relatively small numbers of stroke admissions. The success of any new service model will be absolutely dependent on staff being employed and deployed in such a way that makes the best use of their skills and which allows them to continue to develop as professionals while providing the services that users and patients need. The patient experience, and their perception of the quality of care they receive, depends in a very significant way on having well-trained, experienced and motivated frontline staff.

The evidence is clear that we need to organise stroke services to give patients with acute stroke the best possible chance wherever they are in NI. It is unacceptable that the stroke treatment people

receive - including access to brain scans and the clot busting drug thrombolysis - should vary according to where they live.

The consultation will run from 26 March 2019 to 18 June 2019. A consultation questionnaire is available at [www.health-ni.gov.uk/consultations/reshaping-stroke-care](http://www.health-ni.gov.uk/consultations/reshaping-stroke-care) and the Department would encourage everyone to have their say on this important issue.



## ABOUT THIS DOCUMENT

**Part 1** of this document looks at the current stroke pathway from prevention through to hospital services and support in the community following stroke and considers how services can be further improved. We have made seven commitments to drive this improvement:

**COMMITMENT 1:** We will identify a regional model for TIA assessment by March 2020 and implement that model by 2022 to deliver a 7 day service of specialist assessment within 24 hours of symptoms.

**COMMITMENT 2:** By 2022 we will remove the variance in delivering thrombolysis to ensure that patients across NI have timely access to the treatment.

**COMMITMENT 3:** We will continue to invest in the growth of thrombectomy, increasing hours of operation to Monday – Friday 8am-8pm service by December 2019, and moving to 24/7 service by 2022.

**COMMITMENT 4:** We will reshape stroke services by 2022 to establish dedicated hyperacute and acute stroke units underpinned by regional service standards to deliver improved outcomes for stroke patients.

**COMMITMENT 5:** The recently published Stroke Association document ‘Struggling to recover’ makes six recommendations to improve services. Alongside the reshaping of hospital services, we are committed to driving improvement in rehabilitation and long-term support and will use the Stroke Association’s analysis and recommendations as a blueprint to drive that improvement.

**COMMITMENT 6:** The HSC will undertake a workforce review to identify the staffing and skill mix required to deliver effective stroke services.

**COMMITMENT 7:** We will extend the partnership with the charity AANI to enable the Helicopter Emergency Medical Service (HEMS) to provide a secondary response to incidents including strokes by 2022 to improve access to services, particularly from rural areas.

**Part 2** of the document focuses on reshaping hospital-based stroke services and outlines how we have used available evidence to develop six options of how hospital-based stroke services can be reshaped. We are particularly keen to hear your views on these options.

# 1

## PART 1: THE CURRENT STROKE PATHWAY



## PREVENTION

It is known that many strokes can be prevented. People at a higher risk of stroke include those with high blood pressure, irregular heartbeat, heart disease and diabetes. Addressing lifestyle factors plays a key role in preventing strokes. This includes smoking cessation, healthy eating, maintaining a healthy body weight, reducing high blood pressure and taking regular exercise. Knowing the signs and symptoms of a stroke and taking appropriate action are important in reducing the devastating effects of stroke. Prevention may also include the treatment of people with atrial fibrillation with medicine to thin the blood, and prevent clots forming that may cause a stroke.

### FAST campaign

Knowing the signs and symptoms of a stroke and taking appropriate action are important in reducing the devastating effects of stroke. The F.A.S.T public information campaign has been successful in making people aware of the signs of a stroke and the action to take.

F.A.S.T stands for:

- **Face** – the face may have dropped on one side, the person may not be able to smile, or their mouth or eye may have dropped.
- **Arms** – the person with suspected stroke may not be able to lift both arms and keep them there because of weakness or numbness in one arm.
- **Speech** – their speech may be slurred or garbled, or the person may not be able to talk at all despite appearing to be awake.
- **Time** – it's time to dial 999 immediately if you see any of these signs or symptoms.

### Transient Ischaemic Attack (TIA)

A TIA or “mini stroke” is caused by a temporary disruption in the blood supply to part of the brain. This results in a lack of oxygen to the brain and can cause sudden symptoms similar to a stroke. However, a TIA doesn't last as long. Symptoms usually only last for a few minutes or hours and fully disappear within 24 hours.

## TIA ASSESSMENT

### WHAT?

TIA patients should be treated as a medical emergency because these individuals are at a much higher risk of experiencing a stroke in the following days and weeks.

If treated quickly, the risk of a stroke occurring can be greatly reduced. Guidelines recommend that TIA patients, who are at high risk of a stroke, should be assessed by specialists within 24 hours of their first symptoms.

### WHERE?

12 locations - Antrim, Causeway, Craigavon, Daisy Hill, Altnagelvin, South West Acute, Omagh, Royal Victoria, Mater, Ulster, Lagan Valley and Downe hospitals.

### LEVELS OF PERFORMANCE

- TIA assessment clinics only receive referrals 5 days a week.
- It is estimated that up to 29% of high risk patients are not being assessed within 24 hours.
- Not all patients are being assessed within 24 hours – likely that these delays result in avoidable strokes.
- Currently more than 800 hospital admissions with TIAs each year – some of these could be avoided if seven day TIA clinics were available.

### COMMITMENT TO IMPROVEMENT

**COMMITMENT 1:** We will identify a regional model for TIA assessment by March 2020 and implement that model by 2022 to deliver a 7 day service of specialist assessment within 24 hours of symptoms.



## HOSPITAL-BASED CARE

### The current hospital pathway

If an ambulance crew suspects that someone may have suffered a stroke they will bring a patient to one of eight locations to be assessed for a blood thinning treatment called **thrombolysis**. Thrombolysis isn't suitable for all patients, for example those on blood thinning medicine. The treatment is appropriate for approximately 1 in 5 patients.

Patients who have a particular large clot may be suitable for an intervention to remove a clot called **thrombectomy**.

Thrombectomy is a procedure which involves the insertion of a specially-designed clot removal device through a catheter into the blocked artery to remove the clot. This can be provided to some patients not suitable for thrombolysis and also to some patients after having received thrombolysis.

Approximately 1 in 10 stroke patients would benefit from thrombectomy. For every 100 people receiving the procedure, 20 will subsequently be able to lead an independent life, and 38 people will be less disabled after a stroke. This is approximately double what we would expect with normal treatment. However, thrombectomy is not currently available outside of 8.30am – 5.30pm Monday to Friday. Thrombectomy can provide benefits when carried out up to 24 hours after stroke onset, although once a patient has been identified as suitable for the treatment, they should receive it as soon as possible..

All stroke patients regardless of what treatment they receive should be directly admitted to a particular type of stroke ward called a hyperacute stroke unit. In this unit they are monitored very closely, receive all the necessary investigation, tests and assessments and will receive dedicated care from a multidisciplinary team of specialists. This is one of the most important elements of stroke care that greatly enhances the chances of a person making a good recovery.

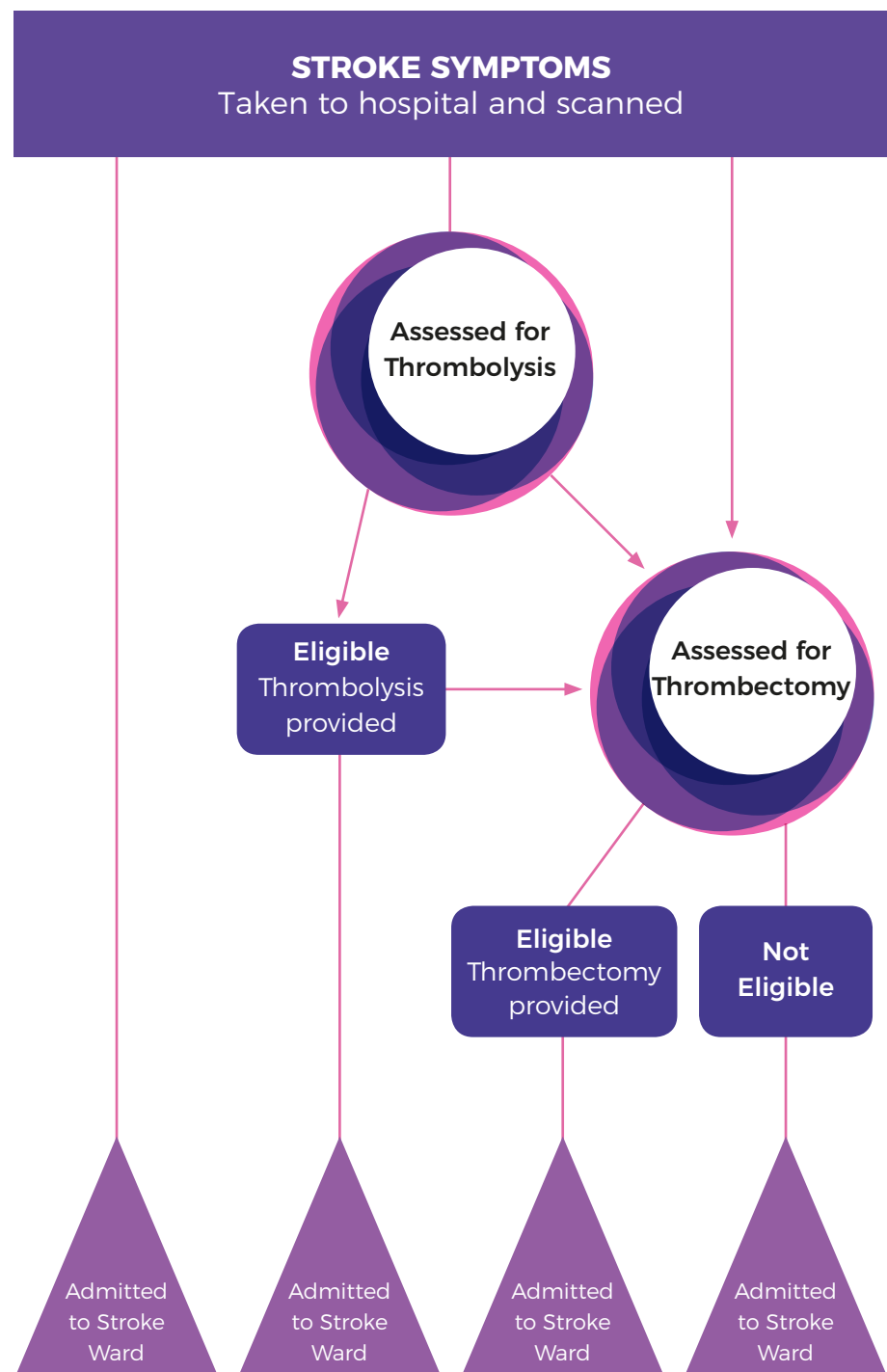
Under our current system, only 4 in 10 patients are admitted to a stroke ward in the first 4 hours.

Following treatment in a hospital, patients can be discharged to their own home with a package of rehabilitation and support or to a non-acute hospital to allow further time for recovery. A small number of patients are also admitted to the Regional Acquired Brain Injury Unit.

Not everyone who is brought to hospital with symptoms similar to a stroke have experienced a stroke. This is because, in some cases,

the symptoms of conditions such as migraine can mimic those of a stroke. Within a reshaped model of care, it will be important to identify stroke mimics and ensure that those individuals who do not require hyperacute stroke care are directed onto the right pathway at the earliest opportunity to ensure they receive care in the right environment.

**The stroke pathway is outlined in the diagram below.**



We look at each of these services in the following pages.

## THROMBOLYSIS

### WHAT?

Ischaemic strokes can often be treated using injections of a medication called alteplase which dissolves blood clots and restores blood flow to the brain. This is known as thrombolysis; it can be provided up to 4 and 1/2 hours after a stroke occurs, but is most effective if started as soon as possible after the stroke occurs.

### WHERE?

8 locations at hospitals across NI - Antrim, Causeway, Craigavon, Daisy Hill, Altnagelvin, South West Acute, Royal Victoria, and Ulster hospitals



### LEVELS OF PERFORMANCE

Within the current eight locations, we know that there is a wide variation in the number of people who receive thrombolysis. This ranges from just over 10% to just over 20% of stroke patients.

There is also significant variation in the time it takes to provide thrombolysis (door to needle time). From October to December 2018, the percentage of stroke patients who received thrombolysis within 1 hour ranged from just under 40% to 100%.

In the period April 2017 – March 2018, only the South West Acute Hospital met the SSNAP target of providing thrombolysis to a minimum of 15% of stroke patients.

Evidence from other parts of the UK suggests redirecting patients to larger stroke centres improves the rates of access to thrombolysis.

### COMMITMENT TO IMPROVEMENT

**COMMITMENT 2:** By 2022 we will remove the variance in delivering thrombolysis to ensure that patients across NI have timely access to the treatment.

## THROMBECTOMY

### WHAT?

A new, highly complex procedure which can remove a large clot from the brain following the most severe form of stroke.

Thrombectomy is more effective the earlier it is provided but may be effective in some cases up to 24 hours after the first stroke symptoms. In some cases it can be delivered after this point.

### WHERE?

The procedure is only provided at the Royal Victoria Hospital. Due to the specialist expertise required to deliver this service, and the necessary availability of complex support services on the site, it is likely that this could only ever be provided at a single regional centre.

### LEVELS OF PERFORMANCE

We are continuing to increase the number of people receiving thrombectomy: in 2018, 122 people underwent the procedure.

However, thrombectomy is currently only available from Monday – Friday 08.30am – 5.30pm. These restricted hours mean that the full potential of thrombectomy to further reduce disability is limited in NI.

### COMMITMENT TO IMPROVEMENT

**COMMITMENT 3:** We will continue to invest in the growth of thrombectomy, increasing hours of operation to Monday – Friday 8am-8pm service by December 2019, and moving to 24/7 service by 2022.



## STROKE WARDS

### WHAT?

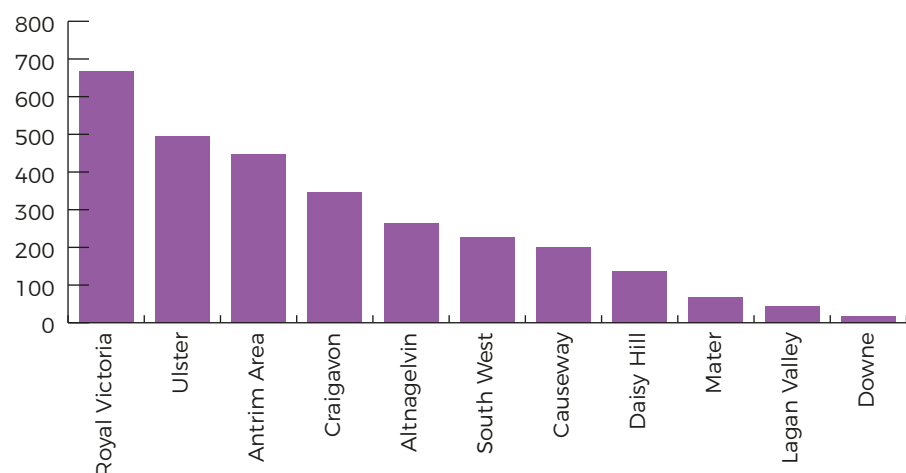
Stroke wards provide levels of specialist care including access to specialist nurses, physicians and allied health professionals.

### WHERE?

11 locations - Antrim, Causeway, Craigavon, Daisy Hill, Altnagelvin, South West Acute, Royal Victoria, Mater, Ulster, Lagan Valley and Downe hospitals.

The number of people admitted varies widely as shown below:

Emergency Admissions Stroke 2017/18



Source: Hospital Information System (HSC Data Warehouse) ICD 10 codes 161-164

### LEVELS OF PERFORMANCE

Only around half of people with strokes are admitted to stroke units – despite admission to a specialist unit being the single most important treatment for stroke patients.

In the period April 2017 – March 2018, only the Royal Victoria and South West Acute hospitals met the SSNAP target of ensuring that 90% of patients were admitted to a stroke unit.

Not all units meet the required standard.

Because the number of stroke patients attending each hospital is often small, patients are often admitted to care of general medical or elderly medicine consultants.

### COMMITMENT TO IMPROVEMENT

**COMMITMENT 4:** We will reshape stroke services by 2022 to establish dedicated hyperacute and acute stroke units underpinned by regional service standards to deliver improved outcomes for stroke patients.

## NON ACUTE HOSPITAL CARE

### WHAT?

Provide ongoing rehabilitation, care and support with adapting to life after stroke. This applies to approximately 13% of stroke patients.

### WHERE?

5 locations – Lurgan, Tyrone County, Whiteabbey, Mid Ulster and South Tyrone hospitals

### LEVELS OF PERFORMANCE

The practice of providing general rehabilitation outside specialist stroke units is not supported by research or stroke clinical guidelines.

### COMMITMENT TO IMPROVEMENT

**COMMITMENT 4:** We will reshape stroke services by 2022 to establish dedicated hyperacute and acute stroke units underpinned by regional service standards to deliver improved outcomes for stroke patients.





## COMMUNITY REHABILITATION AND SUPPORT

Around two thirds of stroke survivors will require some continued support or rehabilitation in the community after discharge from hospital. Up to 40% of stroke survivors may be suitable for 'Early Supported Discharge' which replicates the specialist stroke therapy normally provided in hospital within the home environment. This should be available seven days a week. Only the Belfast and South Eastern Trusts provide access to these services at the weekend. In recognition of this, the HSC is investing an additional £1.3m in the roll out of Early Supported Discharge.

### **Continued support for life after stroke**

Stroke rehabilitation usually begins in hospital in a stroke unit and continues after hospital discharge by either a community stroke team or an early supported discharge team.

The aim of stroke rehabilitation is to relearn skills lost after a stroke and improve the quality of life for the stroke survivor. The severity of stroke complications and each person's ability to recover vary widely. This service should be delivered by a core multidisciplinary team consisting of a doctor, nurse, physiotherapist, occupational therapist, psychologist, social worker, speech and language therapists, and other specialists/services as required eg orthoptists, orthotists, continence advice. Members of the core multidisciplinary stroke team should screen the person with stroke for a range of impairments and disabilities in order to inform and direct further assessment and treatment.

The duration of stroke rehabilitation depends on stroke severity and related complications. Some stroke survivors recover quickly but many need some form of long-term stroke rehabilitation, lasting possibly months after their stroke. Rehabilitation needs can change during recovery.

Local health and social care providers should have robust systems and processes to ensure the safe transfer and long-term care of people after stroke, including those in care homes. This should include timely exchange of information between different providers using locally agreed protocols. Patients should receive information about services provided by voluntary agencies in their localities and carers should be offered a carers assessment.

Responses to the pre-consultation were strongly in favour of the provision of support from the HSC and voluntary sector to stroke

survivors and their carers. Charities such as the Stroke Association and NI Chest Heart and Stroke provide a range of support services designed to improve the health, wellbeing and quality of life for stroke survivors. This includes My Stroke Guide, an online community providing digital support during recovery from stroke, family support services, self management programmes and carers groups.

We know, however, from research undertaken by the Stroke Association in conjunction with the Ulster University that stroke survivors feel that more rehabilitation, psychological and emotional support is required, and that the experience of moving from hospital into the community remains too often a poor one. The Stroke Association's report, 'Struggling to recover' identified some challenging findings including:

- 45% of all stroke survivors felt abandoned when they left hospital;
- 90% of stroke survivors felt that their emotional and cognitive needs were not met once they left hospital; and
- 85% of carers do not feel prepared for their loved one to come home from hospital following a stroke.

Work is already underway to improve support services. For example, the Health and Social Care Stroke Network has agreed a project focusing specifically on long term care. This will see the development of a single regional stroke support pathway for the provision of a range of support services, the identification of gaps in current service provision and the development of a single regional contract specification to reduce duplication and improve equity of access. It is intended that this work will conclude in Summer 2019. In addition, pilots are planned to deliver emotional support through a partnership between the HSC and the voluntary sector. These will be evaluated to determine their impact. But much more can be done.

**COMMITMENT 5:** 'Struggling to recover' makes six recommendations to improve services. Alongside the reshaping of hospital services, we are committed to driving improvement in rehabilitation and long-term support and will use the Stroke Association's analysis and recommendations as a blueprint to drive that improvement.

## THE STROKE WORKFORCE

Around 350 staff are directly employed within hospital stroke services across NI. The largest groups are nursing staff, Allied Health Professionals (AHPs) and medical staff.

Hospital stroke services also link closely with many staff in other services such as: Radiology, Interventional Neuroradiology, Northern Ireland Ambulance Service, Emergency Departments and regional Neurosciences.

Consultant physicians working in stroke services in NI also provide care across general medicine and acute care of the elderly. The exception is the Royal Victoria Hospital which has dedicated stroke consultants.

There are significant challenges within the stroke workforce. Currently four hospitals have vacant consultant posts and the HSC is also experiencing a shortage of nursing and AHP staff across all services. This means that the stroke workforce is currently too thinly deployed across too many sites. In practice this leads to three key issues:

- it leaves services reliant on temporary locum or agency cover, which comes at a high cost and which would be better invested in services that are sustainable in the long term.
- Staff working on smaller sites face challenges in developing and maintaining skills with some hospitals seeing relatively small numbers of stroke admissions.
- It is proving difficult to recruit and retain junior medical staff to deliver services where they would be unlikely to get the experience they need in terms of volumes and case mix in order to maintain their skills and develop new skills.

We also know that there is a challenge in developing and maintaining skills with some hospitals seeing relatively small numbers of stroke admissions.

Furthermore, it is proving difficult to recruit and retain junior medical staff to deliver services where they would be unlikely to get the experience they need in terms of volumes and case mix in order to maintain their skills and develop new skills. The success of any new service model will be absolutely dependent on staff being employed and deployed in such a way that makes the best use of their skills and which allows them to continue to develop as professionals

while providing the services that users and patients need. The patient experience, and their perception of the quality of care they receive, depends in a very significant way on having well-trained, experienced and motivated frontline staff.

**COMMITMENT 6:** The HSC will undertake a workforce review to identify the staffing and skill mix required to deliver effective stroke services.



## 2

## PART 2:

# RESHAPING HOSPITAL-BASED CARE

In 2012, the Regulation and Quality Improvement Authority (RQIA) carried out a review of stroke services. Overall the key findings were that stroke services in NI were too fragmented between hospital sites, many patients were not being cared for in optimal environments, and new time-critical interventions, such as thrombectomy, were not always available on a 24/7 basis. The review also highlighted the need for progression of clinical competencies and training relating to stroke and the establishment of clearly defined stroke units and dedicated stroke wards. This proved difficult to achieve and sustain in smaller hospitals where recruitment and retention of specialist staff is a recognised problem.

The Bengoa Report ('Systems not Structures: Changing Health and Social Care'), published in 2016, highlighted the Department of Health's (England) National Stroke Strategy which identified that care in a stroke unit was the single most important factor in improving patients' outcomes after stroke. Based on these findings, in 2010 acute stroke services were centralised across London. Prior to this, acute stroke services were provided in 30 hospitals. After reconfiguration, specialist care was provided in eight designated hyper acute stroke units 24/7. Evidence suggests that, following the reforms, there was a significant reduction in mortality at 3, 30 and 90 days after admission to a HASU, leading to 96 extra lives being saved per year. There was also a reduction in the length of time stroke patients spent in hospital compared to before reorganisation.

The experience in London demonstrated that, if you have a stroke, you are likely to make a better recovery and have a reduced chance of mortality if you are treated in a fully equipped specialist unit filled with experienced staff. This is more likely in a hyperacute stroke unit, even if you may have to travel further than your local hospital to get there.

Bengoa also highlighted clinical evidence which shows that patients are 25% more likely to survive or recover from stroke if treated in a specialised centre. Other benefits include:

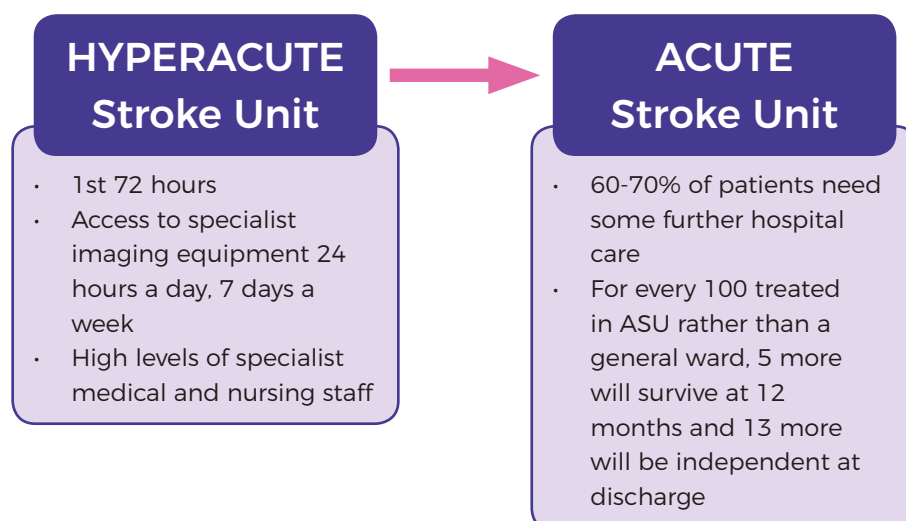
- Improved levels of stroke care in line with National Audit (SSNAP) recommendations – appropriate staffing levels to allow early assessment, observation and early rehabilitation input.
- The highest quality medical care in hospital (more concentrated levels of specialist medical, nursing and AHP care).

- Patients being admitted to a specialist stroke unit as a ward of first admission. Latest medical evidence demonstrates that where patients are treated in specialist stroke units they achieve best outcomes.
- Better rehabilitation outcomes - a specialised service which will bring community and hospital based staff together as an integrated team providing care to stroke patients. This will provide more focused care and continuity of service provision throughout the patient's pathway.
- Reduced length of stay in hospital - more focused community based rehabilitation to allow stroke patients to be discharged from hospital earlier and recover at home.

Stroke unit care can reduce death and disability but not everyone who would benefit from this care is currently receiving it. In NI, patients are not routinely admitted to this type of unit. Usually only those who receive thrombolysis or are clinically unstable on arrival, receive close monitoring in the hours after stroke. This is currently only 12.5% of strokes across NI. We also know that, despite the best efforts of staff working in a challenging environment, the performance of stroke services falls below the level we would like to provide and which patients have a right to expect.

We want to reshape and improve hospital-based stroke services, focusing on improved outcomes by delivering the best possible treatment at the earliest opportunity.

Building on best practice guidelines and standards, we believe that the best way to improve outcomes for the majority of people who have strokes is through the establishment of Hyperacute Stroke Units (HASUs) and Acute Stroke Units (ASUs). This model is outlined below:





### Hyperacute Stroke Units (HASUs)

The Royal College of Physicians and the NICE Stroke Guidelines recommend that every stroke patient should be closely monitored for the first few days in a hyperacute stroke unit. The absence of a hyperacute stroke model in NI means that access to this level of treatment varies significantly depending on geographical location and time of day. In NI, less than 40% of people who have strokes have access to this level of care.

A hyperacute stroke unit requires more intensive nursing, AHP and medical care than in an acute stroke unit. Under the proposals in this document the following infrastructure will be the minimum required at any future location throughout NI to deliver hyperacute stroke unit care:

- Consultant-led Emergency Departments operational 24 hours a day, seven days a week.
- Deliver all the investigations that a patient requires 24 hours a day, seven days a week.
- Highly skilled stroke multi-disciplinary team including clinical nurse consultants, advanced nurse practitioners, AHPs, specialist nurses, and senior nurse decision makers 24 hours a day.
- Potential to deliver a stroke consultant assessment 24 hours a day, seven days a week with a minimum of a six consultants rota.
- Deliver rapid emergency stroke protocols in the Emergency Department with direct admission to a hyperacute stroke unit or rapid transfer to the Royal Victoria Hospital for further assessment for Thrombectomy when required.

Following hyperacute care, around 40% of patients should be discharged home to community stroke services. The remaining 60% of patients would continue to receive care in an ASU. In Manchester, the reconfiguration of stroke services led to a significant reduction in length of hospital stay by 2 days.

### Acute Stroke Units (ASUs)

An acute stroke unit is where hospital care and rehabilitation is provided by a specialist team until a person is ready to be discharged home. This usually commences around the third day. Rehabilitation services are currently delivered in subacute hospitals such as Lurgan, Whiteabbey, and Tyrone County hospitals. However, the proposals in this document envisage that in future all stroke specific rehabilitation would be delivered within specialist acute stroke units.

Although not an acute stroke unit, it is planned that the Regional Acquired Brain Injury Unit at Musgrave Park Hospital will continue in future to have a very important role in delivering specialist rehabilitation to the small group of complex stroke patients whose needs are best met within that environment.

We know from the evidence elsewhere that this approach works. Approximately 100 lives a year have been saved since changes to the way stroke services are organised in London were introduced. Manchester has implemented similar changes with positive results, particularly in reducing the number of days patients need to stay in hospital recovering from a stroke.

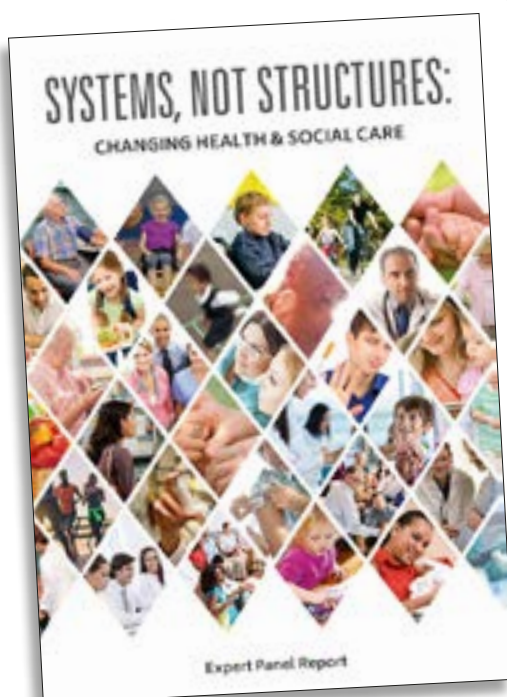
Impact of centralising acute stroke services in English metropolitan areas on mortality and length of hospital stay: difference-in-differences analysis, Morris et al (2014), BMJ

### Workforce Development

In delivering a new model of stroke care, it will of course be absolutely critical to ensure that the workforce is in place to deliver it. The Bengoa Review revealed that the demands facing the current service model, for most specialties, covering community, primary and secondary care services, are putting severe pressures on the workforce. This includes stroke services. This is not fair to the people who use our services, nor is it fair to the HSC staff who deliver them. Resolving this is not about money, it is about creating an environment in which staff are enabled and empowered to do the

jobs they have been trained to do in a way that meets patients' needs. As the evidence above demonstrates, the current stroke model has the patients in the wrong place and at the wrong time; this brings organisational de-motivation as staff feel unable to provide the highest quality of care to those they serve.

The Department therefore recognises that delivering the proposed new model will require significant change for a workforce which is already overstretched and under pressure. If the proposals in this document are approved, following consultation, a detailed workforce implementation plan will be produced to align the deployment of the current available stroke workforce with the new model and to better target investment in workforce to optimise the full potential of the proposed new model, subject to available resources.



## VISION & DEVELOPING OPTIONS

### VISION

The Department's vision is that by reshaping stroke services, Health and Social Care in NI, will:

- By 2022, establish a regionally integrated network of Hyperacute Stroke Units, Acute Stroke Units and Community Rehabilitation Services; and
- By 2024, 95% of people with a stroke will be treated in a HASU.

### DEVELOPING OPTIONS

The University of Exeter was commissioned to provide independent support and assurance for the identification of options for providing hyperacute stroke unit care.

This work utilised five years of data relating to stroke services in NI from hospital admissions and ambulance calls. A computer programme was developed which calculated the re-distribution of patients, the number of disability free outcomes, likely sustainability and population travel times.

**All of the options considered in this document offer significantly improved outcomes compared with the way services are currently provided in hospitals.**

Taking into account best practice and guidance, the analysis for each option considers the sustainability of the service and the impact on travel times.

### Sustainability

Guidance from the Royal College of Physicians recommends that HASU's should ideally admit more than 600 stroke admissions per year.<sup>1</sup> This number is suggested as the minimum size to attract a large cohort of specialist staff and sustain specialist rotas 24 hours a day, seven days a week. The only unit in NI currently admitting more than 600 stroke patients is the Royal Victoria hospital in Belfast. Under the options below, many of the units would still have admissions lower than 600, although this should also be considered in the context of an ageing population and an expected increase in the number of people experiencing strokes over time.

Guidance also recommends that once admissions exceed 1500 this presents an operational challenge and should be carefully managed.

1. Royal College of Physicians  
Guidelines for Stroke, 5th Edition  
(2016) <https://www.strokeaudit.org/SupportFiles/Documents/Guidelines/2016-National-Clinical-Guideline-for-Stroke-St-1.aspx>

2. Birmingham, Solihull and the Black Country stroke redesign literature review, Appendix 14 Stroke Services: Configuration Decision Support Guide (NHS)

Evidence also suggests that redirecting patients to larger stroke centres improves thrombolysis rates. High-volume centres have been associated with better adherence to guidelines and this has been associated with both improved stroke outcome and higher patient satisfaction.<sup>2</sup>

### Travel time

Reconfiguration of stroke services in London suggested targets for travel times of between 30 minutes and 60 minutes for the journey time from home to hyperacute stroke unit for treatment with thrombolysis. However, for a more dispersed urban/rural population such as NI, it is expected that travel times may be longer in some areas. The modelling therefore considered travel further than 60 minutes by road ambulance transport to a HASU.

The reshaping options in this document will mean longer travel time for some people compared with the current model of services. However, evidence from reconfiguration elsewhere demonstrates that patients who are treated in a HASU have better outcomes because they get a faster diagnosis and specialist treatment even if the journey to hospital is longer. It is also true that time spent travelling to hospital accounts for only a small proportion of the time between onset of stroke symptoms and hospital treatment. Stroke patients often take several hours to alert emergency services of their symptoms and often delays are experienced after arrival at hospital. These reforms would mean that patients are taken faster to the services they need in order to make the best possible recovery.

Nevertheless, we recognise that increased travel times are a source of anxiety and are considering a range of options to minimise travel time within the new model of care. This includes the potential expansion of the Helicopter Emergency Medical Service (HEMS) and the development of a new Clinical Response Model for the NI Ambulance Service. We consider these below.

## MEASURES TO ADDRESS TRAVEL TIME

**A Helicopter Emergency Medical Service (HEMS)** facilitates emergency medical assistance where immediate and rapid transportation is essential by carrying medical personnel and/or medical supplies and/or ill or injured persons and other persons directly involved.

An **air ambulance** is where the aircraft is an extension of the Ambulance Service's land vehicles for the transfer of people from/to hospital.

The charity partnership to provide the HEMS service was introduced in NI in 2017. The service is currently targeted at what is known as 'primary response' incidents where medical personnel is transported direct to the scene of an incident and rapid transport is provided to transfer an unstable casualty to the nearest appropriate hospital.

The Department proposes to expand the partnership with the charity Air Ambulance NI (AANI) to enable the HEMS to provide a 'secondary response' to incidents where the aircraft would be dispatched to a designated site to meet a road ambulance coming either from an incident or from a hospital in order to provide rapid onward transport of the patient by helicopter to a hospital. Providing a service to both primary and secondary response incidents was strongly supported by respondents to a public consultation on the establishment of the HEMS with 96% in favour of this approach.

The Northern Ireland Ambulance service plays a central role in ensuring that those with the most serious, life-threatening conditions get the most timely and appropriate response. As well as planned investment in the ambulance fleet and frontline staff, the Northern Ireland Ambulance Service has recently consulted on a new Clinical Response Model, similar to those introduced in recent years elsewhere in the UK. The new model is designed to provide a more clinically appropriate ambulance response than the current approach by better targeting the right resources (clinical skills and vehicle type) to the right patients.

The adoption of this new model is expected to realise a range of benefits for patients including:

- Reducing the proportion of patients receiving the highest level of response from circa 30% to a more appropriate 7%. This will allow resources to be focussed on improving the response to those patients identified as genuinely having an immediately life threatening condition;
- Identifying Category 1 patients earlier than is currently the case and allocating a resource more quickly than at present;

- Improving efficiency by reducing the deployment of multiple resources to incidents where the patient's condition does not warrant that level of response;
- More effective targeting of the right resource, first time to meet the patient's needs.

The new model should lead to improvements in the time patients with conditions such as Stroke and Heart Attack reach definitive care in specialist units. For example, for a patient with a suspected stroke the aim of the response will be to deliver them directly to a specifically identified centre of care i.e. a hospital with hyperacute stroke services, in as short a time as possible, thereby increasing the chances of receiving treatment aimed at reversing the effects of a stroke and increasing the likelihood of a better recovery.

In England, during the trials on a similar model, it was found that stroke patients were arriving in specialist centres sooner than under previous arrangements despite the initial ambulance response taking longer to arrive.

We also recognise that increasing travel time has an impact on the family, friends and carers of people who had a stroke. However, we believe that the benefits of reducing deaths and long-term disability caused by strokes outweighs the short-term impact for people visiting stroke patients in hospitals.

**COMMITMENT 7:** We will extend the partnership with the charity AANI to enable the Helicopter Emergency Medical Service (HEMS) to provide a secondary response to incidents including strokes by 2022 to improve access to services, particularly from rural areas.





## THE OPTIONS

We have identified six options to reshape hospital-based care based on the establishment of Hyperacute Stroke Units (HASUs) and Acute Stroke Units (ASUs). These are summarised in the table below before being considered in more detail.

| Option   | Configuration          | HASU sites   | ASU sites  |
|----------|------------------------|--|--|
| <b>A</b> | 5 HASUs                | Royal Victoria, Craigavon, Altnagelvin, Antrim, South West | Royal Victoria, Craigavon, Altnagelvin, Antrim, South West                         |
| <b>B</b> | 4 HASUs                | Royal Victoria, Craigavon, Altnagelvin, Antrim.            | Royal Victoria, Craigavon, Altnagelvin, Antrim<br>(Possible 5th ASU at Ulster)     |
| <b>C</b> | 4 HASUs                | Royal Victoria, Craigavon, Altnagelvin, South West         | Royal Victoria, Craigavon, Altnagelvin, South West<br>(Possible 5th ASU at Ulster) |
| <b>D</b> | <b>Phased approach</b> |  |  |
|          | Stage 1: 4 HASUs       | Royal Victoria, Craigavon, Altnagelvin, Antrim             | Royal Victoria, Craigavon, Altnagelvin, Antrim<br>(Possible 5th ASU at Ulster)     |
|          | Stage 2: 3 HASUs       | Royal Victoria, Craigavon, Altnagelvin                     | Royal Victoria, Craigavon, Altnagelvin, Antrim<br>(Possible 5th ASU at Ulster)     |
| <b>E</b> | <b>Phased approach</b> |  |  |
|          | Stage 1: 4 HASUs       | Royal Victoria, Craigavon, Altnagelvin, South West         | Royal Victoria, Craigavon, Altnagelvin, Antrim<br>(Possible 5th ASU at Ulster)     |
|          | Stage 2: 3 HASUs       | Royal Victoria, Craigavon, Altnagelvin                     | Royal Victoria, Craigavon, Altnagelvin, Antrim<br>(Possible 5th ASU at Ulster)     |
| <b>F</b> | 3 HASUs                | Royal Victoria, Craigavon, Altnagelvin                     | Royal Victoria, Craigavon, Altnagelvin, Antrim<br>(Possible 5th ASU at Ulster)     |

## CURRENT SERVICE

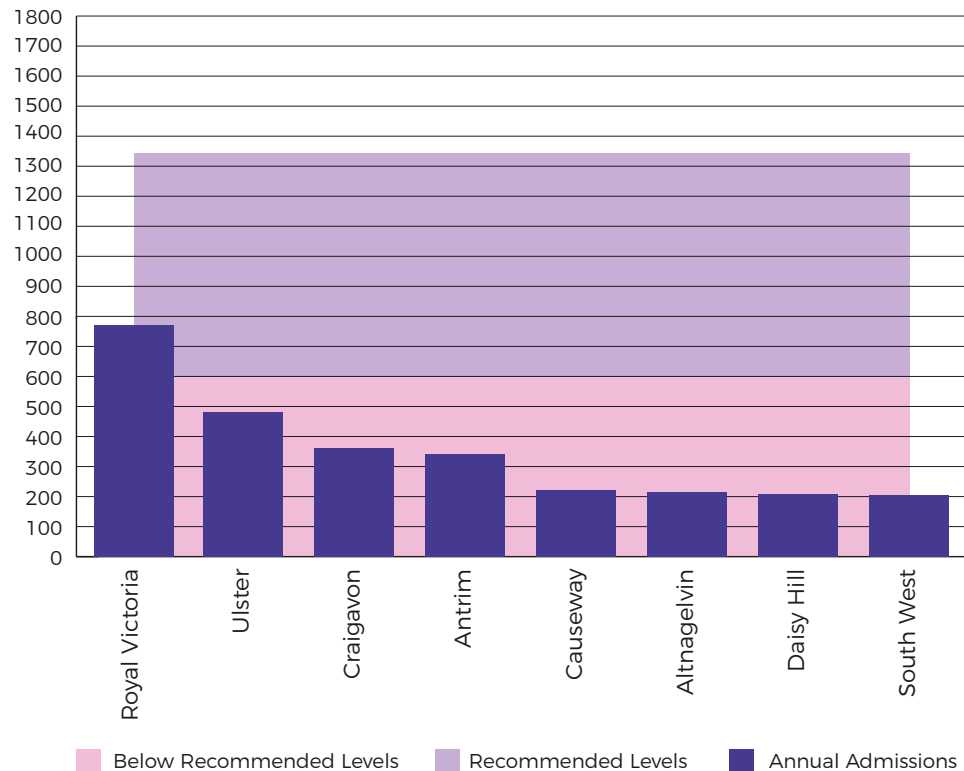
**BASELINE:** Thrombolysis-providing units at Royal Victoria, Ulster, Daisy Hill, Antrim, Altnagelvin, Causeway, Craigavon and South West hospitals

### Sustainability

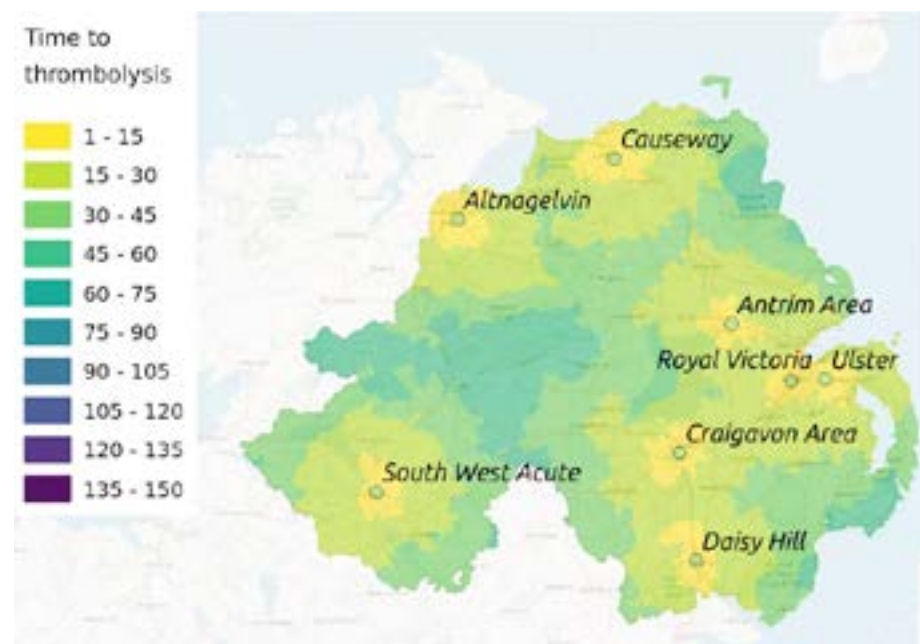
As outlined previously in this document, current services are not sustainable, with seven out of eight hospital sites having estimated annual admissions below the recommended levels. This may mean that staff at those hospitals do not have the opportunity needed to build and maintain relevant skills, and that consequently people attending those hospitals are not receiving the best possible treatment.

Having this many sites also means that the deployment of the current workforce is very stretched. For example, there is a shortage of consultants at more than half of the current sites.

### Estimated Annual Admissions



## Travel time



With eight sites, travel time falls within 60 minutes. However, travel time alone is not sufficient to deliver better outcomes. It is more important that patients are taken as quickly as possible to the place where they will receive the best care. All of the reconfiguration options discussed in this document offer significantly improved outcomes over this current configuration despite longer travel times.

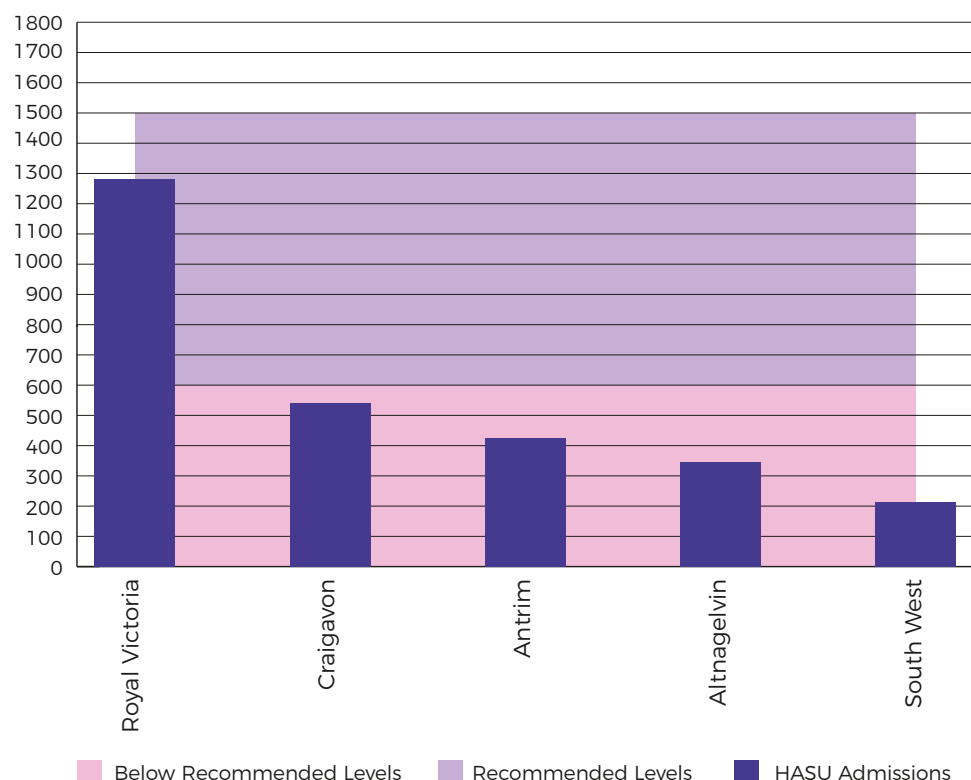
**OPTION A:** Hyperacute stroke units at Altnagelvin, Antrim, Craigavon, Royal Victoria and South West Acute hospitals. Acute stroke units co-located.

### Sustainability

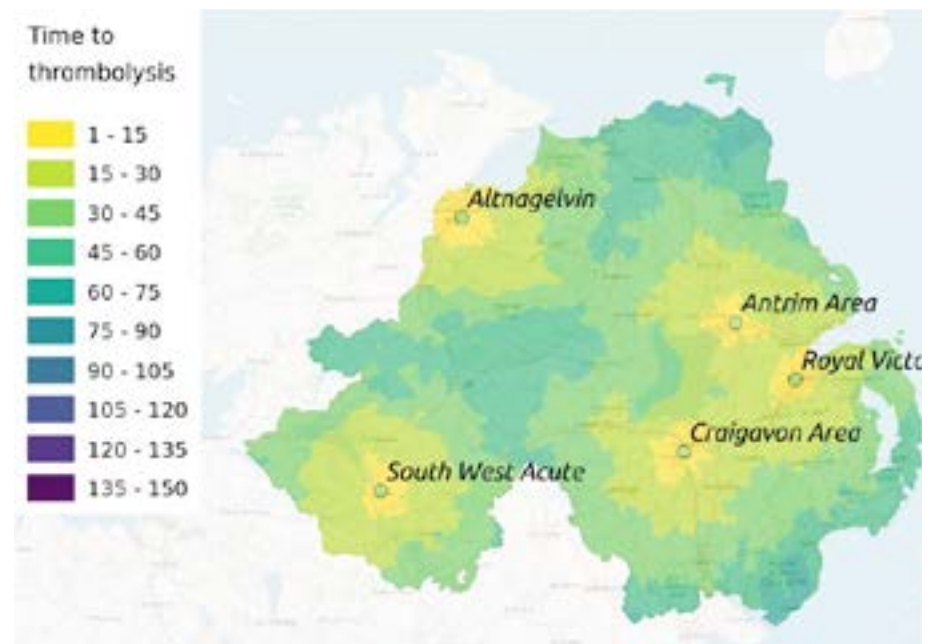
As outlined in the diagram below, four of the five HASU sites within this configuration have admission levels which fall below the recommended minimum level. This poses a potential risk to the sustainability of improved outcomes with staff potentially unable to get the experience they need to develop and maintain their specialist skills.

We recognise that the South West Acute Hospital (SWAH) performs well against standards and has a relatively small number of annual admissions. The performance of other hospitals with smaller levels of admissions would suggest that the SWAH's performance is not one which can be easily replicated elsewhere. In looking at how services are provide in the future, we need to look at the sustainability not just of individual sites, but of our network of services as a whole.

### Estimated Annual Admissions



## Travel time



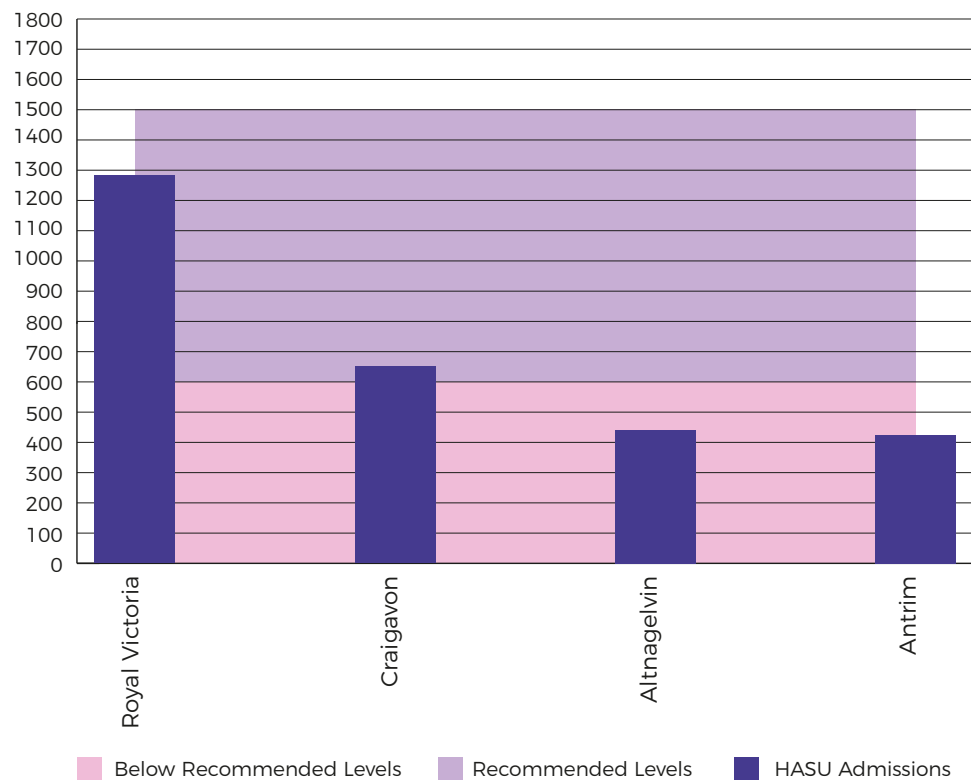
This option performs well on travel times, with 99% of the population having a travel time to one of the HASU sites of 60 minutes or less and a maximum travel time of 66 minutes.

**OPTION B:** Hyperacute stroke units at Altnagelvin, Royal Victoria, Craigavon and Antrim hospitals. Acute stroke units to be co-located, with consideration of a fifth ASU at the Ulster hospital.

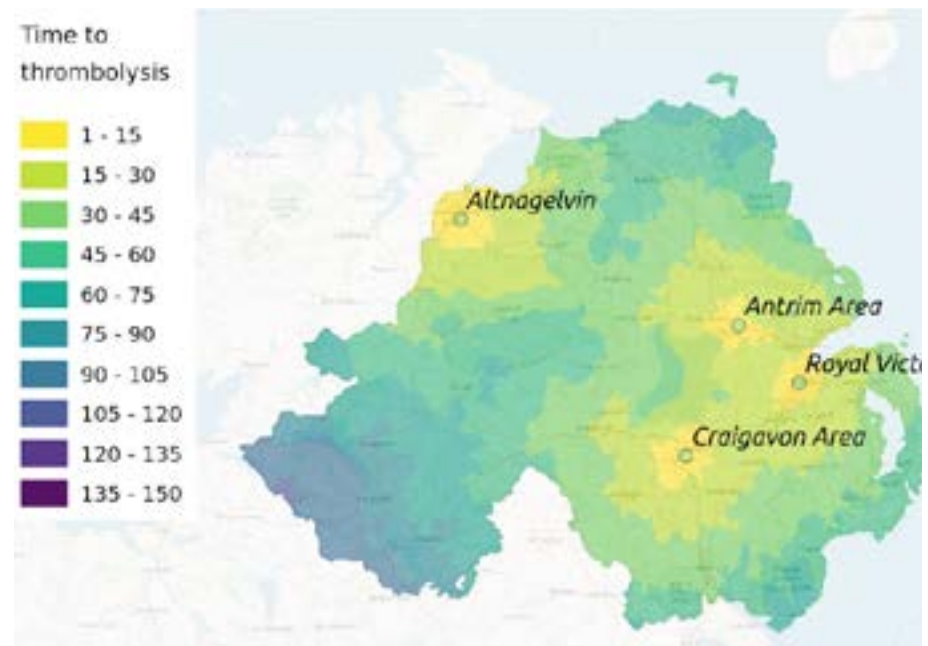
### Sustainability

As outlined in the diagram below, both Antrim and Altnagelvin hospitals would have admission levels falling below the recommended level. This could mean that staff at these hospitals do not get the experience they need to build and maintain their expertise. This, in turn, may have a negative impact on patient outcomes with patients not receiving the right treatment in as timely a fashion as a hospital with higher levels of admission and therefore experience.

### Estimated Annual Admissions



## Travel time



Under this option, 94% of the population are within a 60 minute travel time to one of the HASU sites. A relatively small proportion of the population would, however, see travel times in excess of 60 minutes, with a maximum travel time of 106 minutes.

In this context, the availability of an air ambulance for stroke patients is an important consideration in considering the potential to address excess travel time for those affected.



**OPTION C:** Hyperacute stroke units at Royal Victoria, Altnagelvin, Craigavon and South West hospitals. Acute stroke units (ASUs) co-located with consideration of a fifth ASU at the Ulster hospital.

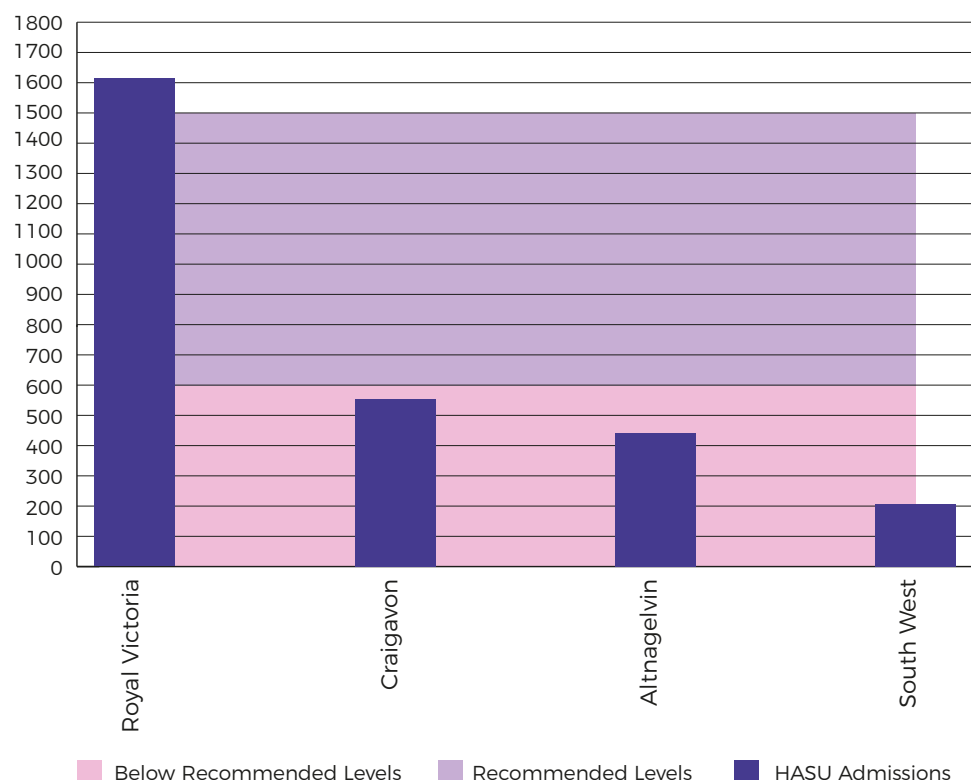
### Sustainability

As outlined below, none of the HASU sites have admission levels within the recommended levels. A HASU at the Royal Victoria would see admissions of 1,613, above the recommended maximum of 1,500. It is likely that additional measures would be needed to ensure that sufficient capacity and staffing was in place to ensure a resilient service to meet this demand.

HASUs at Craigavon, Altnagelvin and South West Acute hospitals would have admissions which fall below the recommended level. This may mean that staff in those hospitals do not have the opportunity needed to build and maintain their specialist expertise which, in turn, may have a negative impact on patient outcomes with patients not receiving the right treatment in as timely a fashion as a hospital with higher levels of admission.

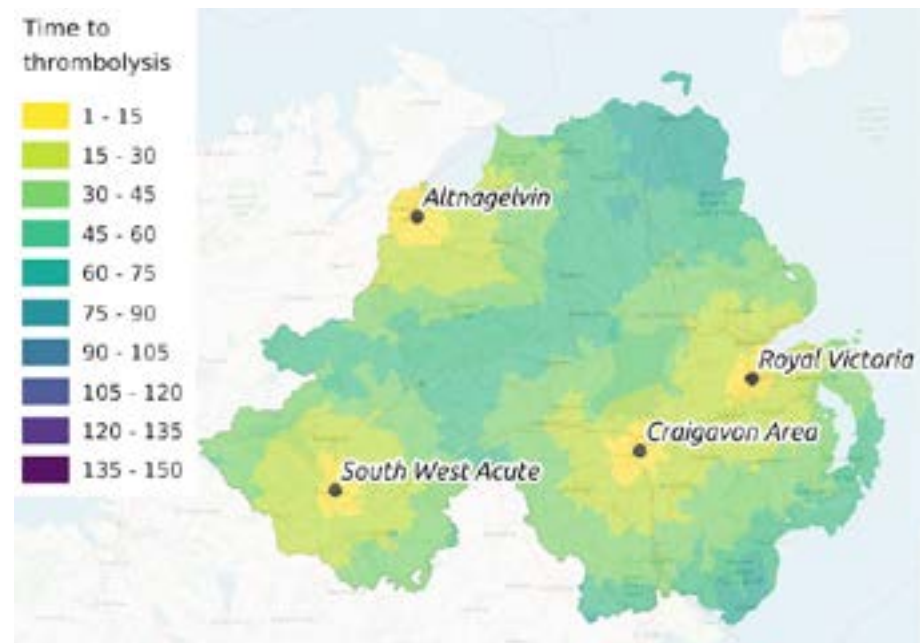
However, we recognise that the South West Acute Hospital (SWAH) performs well against standards and has a relatively small number of annual admissions. The performance of other hospitals with smaller

### Estimated Annual Admissions



levels of admissions would suggest that the SWAH's performance is not necessarily one which can be easily sustained or replicated elsewhere. In looking at how services are provided in the future, we need to look at the sustainability not just of individual sites, but of our network of services as a whole.

### Travel time



This option performs relatively well on travel times with 98% of the population living within a 60 minute travel time to one of the HASU sites. The maximum travel time is 75 minutes. As with option one, we need to consider this performance in the context of the impact measures such as an air ambulance could have on travel times within other configurations which may offer a more sustainable platform for improved outcomes.

**OPTION D:** Hyperacute stroke units at Royal Victoria, Altnagelvin, Craigavon and Antrim hospitals with services removed from Antrim Hospital over time.

### Sustainability

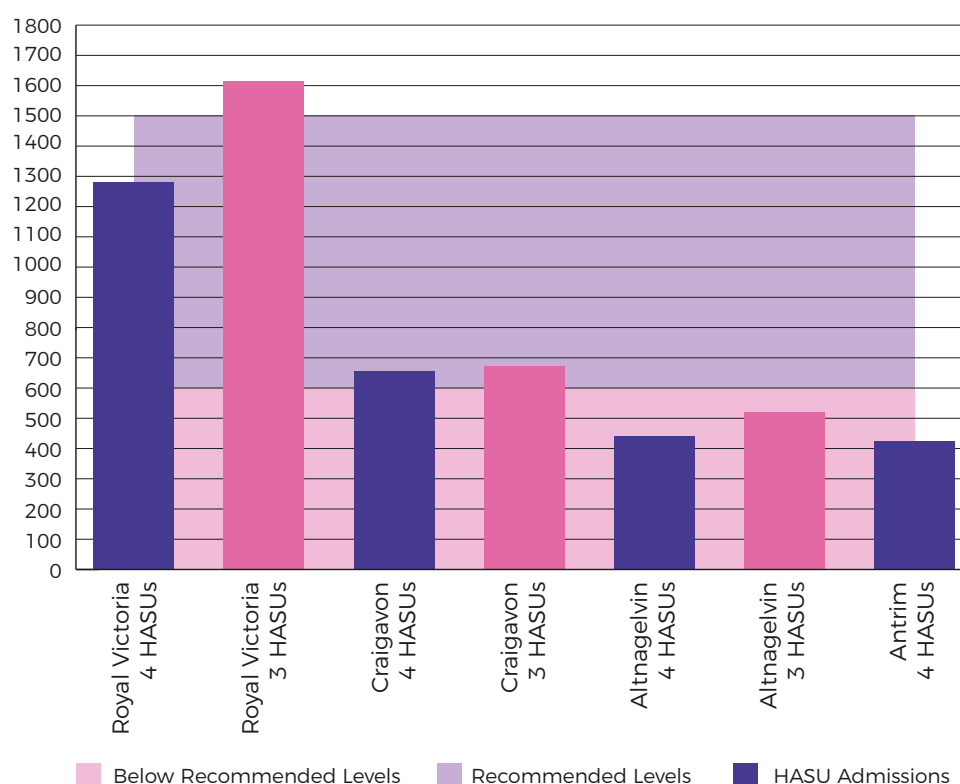
As outlined in more detail under option B, the main issues with the initial four HASU model are admissions levels falling below recommended levels at two of the four sites, with a potential impact on the opportunity available to staff on those sites to develop and maintain specialist skills.

The main issues for a 3 HASU model, as outlined in more detail under option F, are that admissions at Royal Victoria would be above the recommended level.

The main strength of the phased approach within this option is the additional flexibility it offers in allowing time to maximise capacity at the Royal Victoria site to cope with 1,600 admissions, while ensuring that people have access to high quality, sustainable stroke services in the interim.

With services withdrawn from the Antrim site, Altnagelvin sees a significant increase in admission levels which increase from 434 to 520, bringing Altnagelvin closer to the recommended level of admissions.

### Estimated Annual Admissions

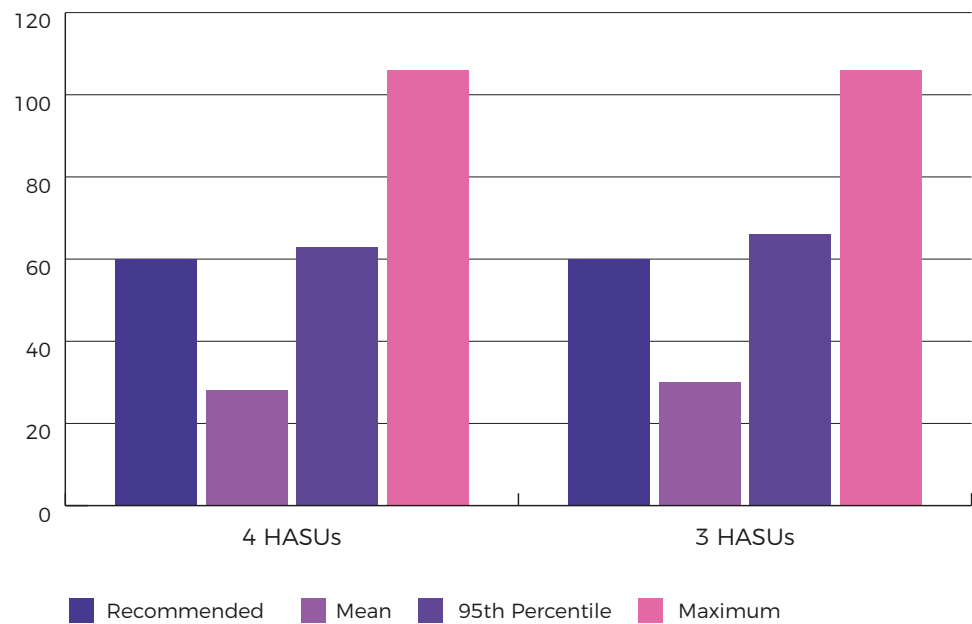


### Travel time

Under this phased approach, 94% of the population lives within 60 minutes of one the four HASU sites. This is reduced to 93% when the HASU sites are reduced to three.

As outlined in the chart below, travel times are only marginally affected by this phased approach.

### Estimated Travel Time



**OPTION E:** Hyperacute stroke units at Royal Victoria, Altnagelvin, Craigavon and South West Acute hospitals with services removed from the South West Acute Hospital over time.

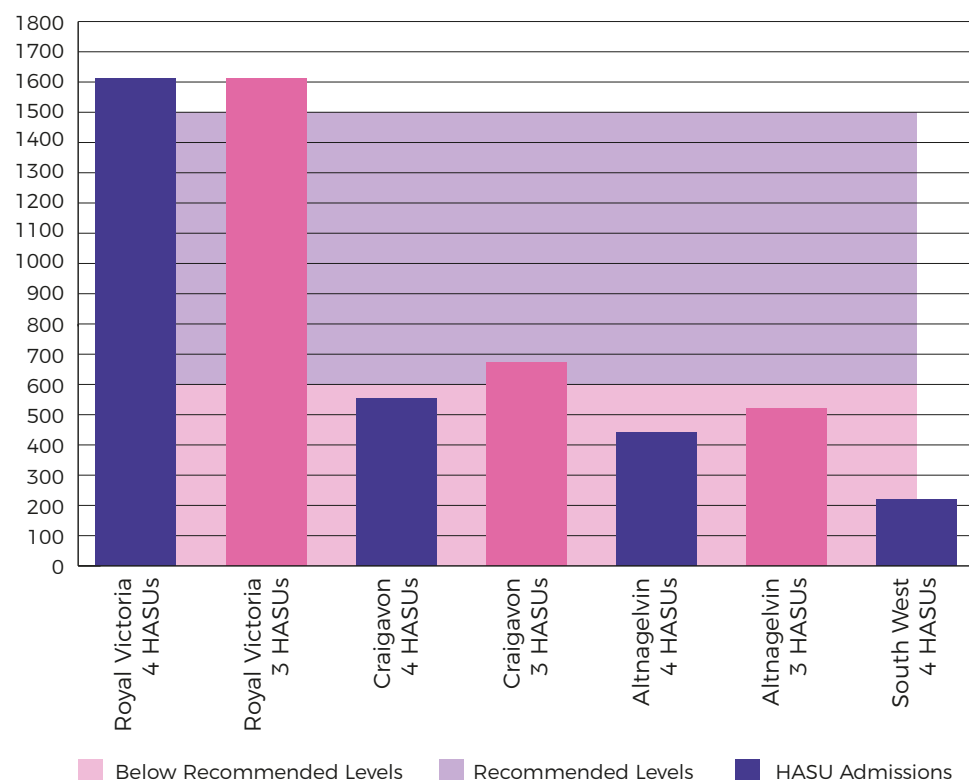
### Sustainability

As outlined in more detail under option C, the main issue for this 4 HASU model is that none of the four sites have admissions levels within recommended levels.

Subsequently reducing to three HASUs results in increased admissions to both Craigavon (which then falls within the recommended levels) and Altnagelvin which nonetheless continues to fall below the minimum recommended level.

The phased approach within this option has no impact on the Royal Victoria which sees admission levels of 1,613 under both the four and three HASU configuration. This phased approach does not allow for additional time to maximise capacity on the Royal Victoria site as the presence of a HASU at the South West Acute Hospital has no impact on admissions at Royal Victoria.

### Estimated Annual Admissions

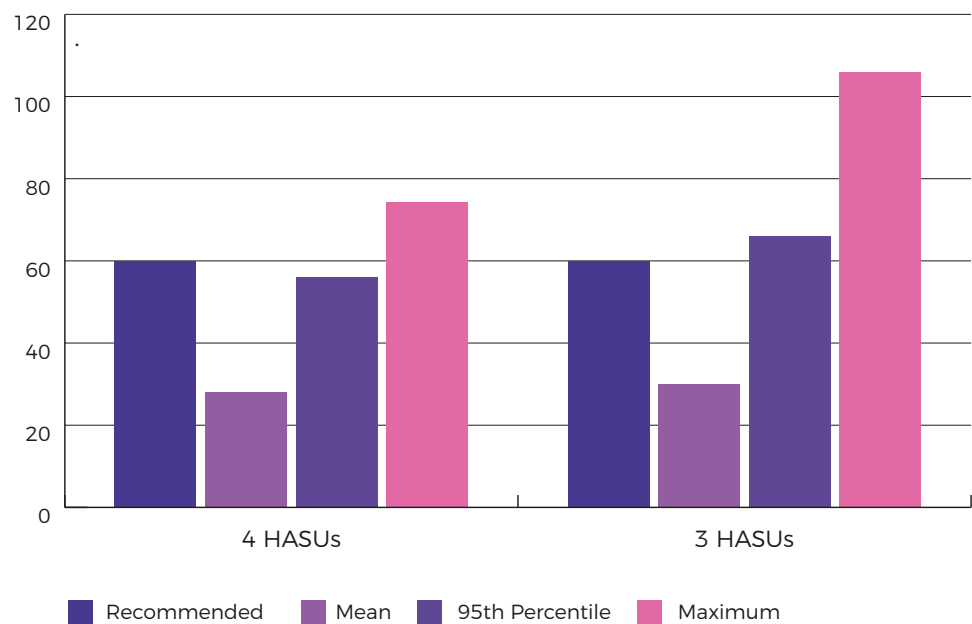


### Travel time

Under this phased approach the percentage of the population living within 60 minutes of a HASU falls from 98% with four HASUs to 93% with three HASUs. Maximum travel time increases from 75 minutes to 106 minutes.

In this context, the availability of an air ambulance for stroke patients is an important consideration in considering the potential to address excess travel time for those affected.

### Estimated Travel Time



**OPTION F:** Hyperacute stroke units at Royal Victoria, Altnagelvin and Craigavon hospitals. Acute stroke units co-located with additional ASUs at Ulster and Antrim hospitals.

### Sustainability

This option sees two of the three HASU sites with estimated admission levels which fall outside the recommended level.

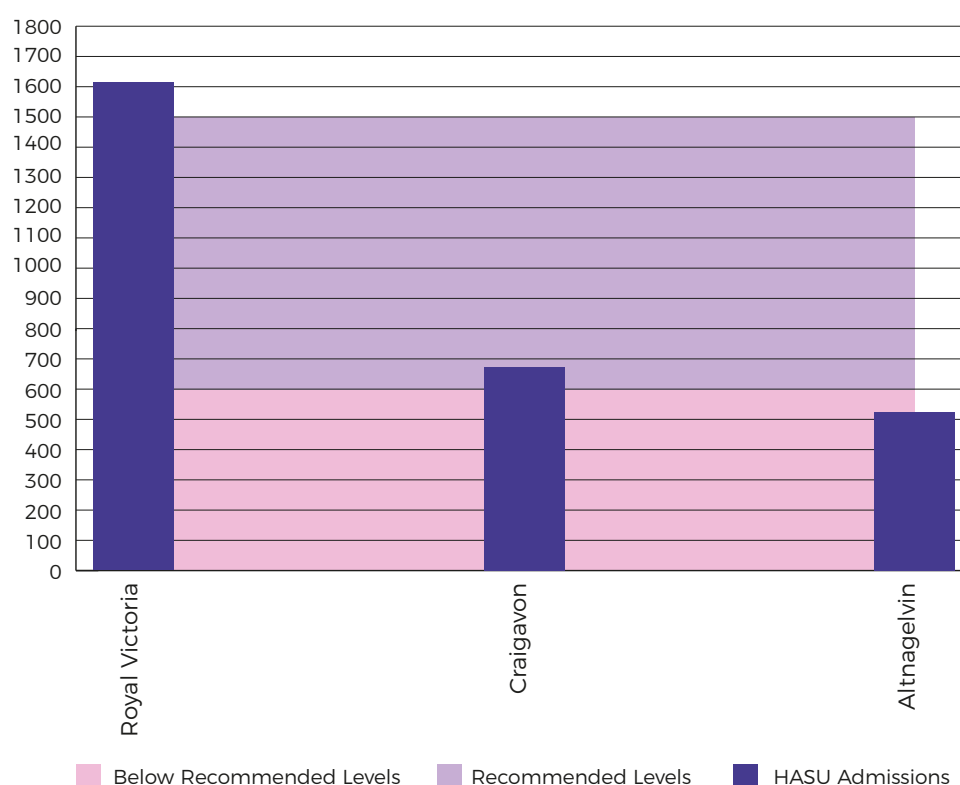
Altnagelvin would see 520 admissions, just below the recommended minimum level, while the Royal Victoria would see 1,613 admissions, just above the recommended maximum level.

However, while falling beneath the recommended minimum level, Altnagelvin would see its highest level of admissions under this option, suggesting that this is the best option for maintaining a sustainable service on the Altnagelvin site.

It is recognised that while the volume of admissions at Royal Victoria would provide a strong opportunity for the development and maintenance of specialist expertise additional measures may be required to support staff at the Royal Victoria to ensure that the levels of admission did not become overwhelming and reduce the potential for improved outcomes.

It is also recognised that the delivery of this option is dependent on the necessary capacity being secured on the Royal Victoria site.

### Estimated Annual Admissions





## Travel time



This option is the poorest performing option in terms of travel time, with 93% of the population living within 60 minutes of one of the three HASU sites. The maximum travel time is almost 120 minutes.

In this context, the availability of an air ambulance for stroke patients is an important consideration in considering the potential to address excess travel time for those affected.

## ABOUT THESE OPTIONS:

Establishing a network of HASUs and ASUs will have an impact on other services discussed in this document. This will include existing stroke wards and non-acute hospital wards currently providing rehabilitation and support.

The order is not a ranking and we are not identifying a preferred option until we have fully considered your views and feedback alongside the available evidence.

Change will not happen overnight; the final model will be implemented in a phased approach over 24 months, reflecting the complexities and co-dependences with other services required to ensure effective stroke services.

None of these options are about saving money; all of these reconfiguration options will see significant additional investment in stroke services.

### Equality Screening

In accordance with guidance produced by the Equality Commission for NI and in keeping with Section 75 of the NI Act 1998, the proposed options have been equality screened and a preliminary decision has been taken that a full equality impact assessment is not required at this stage. The preliminary decision is subject to change following analysis of feedback received during the consultation.

### Rural Proofing

Rural proofing is a process that aims to make sure that Government policies are carefully and objectively examined to make sure they treat those in rural areas fairly and to make public services available in a fair way, no matter where people live in NI. Where necessary, policy adjustments might be made to reflect rural needs and in particular to ensure that as far as possible public services are accessible on a fair basis to the rural community. Throughout the consultation process, careful consideration will be given to the needs of rural communities.

### Regulatory Impact Assessment

Any requirement for a Regulatory Impact Assessment will be revisited when there is more clarity on a preferred option as an outcome of this consultation exercise.

## GET INVOLVED

You can share your views on reshaping stroke services in a number of ways. Our website [www.health-ni.gov.uk/consultations/reshaping-stroke-care](http://www.health-ni.gov.uk/consultations/reshaping-stroke-care) provides full details of the consultation, including panel meetings and ways to get in touch.

You can send in your answers to the questions in this consultation paper, and comments on the issues, either by post or by email, to:

**Reshaping Stroke Services**  
**Department of Health**  
**Annexe 3**  
**Castle Buildings**  
**Stormont Estate**  
**Belfast BT4 3SQ**

**Email: [StrokeConsultation@health-ni.gov.uk](mailto:StrokeConsultation@health-ni.gov.uk)**  
**Telephone: 028 9076 5643**

A separate questionnaire is available to help you to record your comments and views, and can be downloaded on the [Department's website](#)

You can also respond to the issues using our online questionnaire, which can be accessed at the following [website](#).

Or you can also request a meeting with a panel of experts in your local area to ask questions about the proposals and share your views in person. Further details of events in your area are available [here](#).

This document is also available in alternative formats on request. Please contact the Department, at the address above or by phoning 028 9076 5643, to make your request.

The consultation closes at 5pm on 18th June.

## SUMMARY OF QUESTIONS

### Questions

1. Do you agree that stroke patients should be admitted as soon as possible to specialist centres to deliver the best possible outcomes?
2. Do you agree that, to deliver an effective service, staff need the opportunity to build and develop their specialist expertise?
3. Do you agree that delivering better outcomes should take priority over additional travel time?
4. Would the availability of additional measures such as the availability of an air ambulance address your concerns about additional travel time?
5. Which of the options do you think delivers the maximum benefit for stroke patients in NI?
6. Are there additional options that we have not considered?

## CONFIDENTIALITY AND ACCESS TO INFORMATION

The Department may publish a summary of responses following completion of the consultation process. Your response, and all other responses to the consultation, may be published or disclosed on request in accordance with information legislation; these chiefly being the Freedom of Information Act 2000 (FOIA), the Environmental Information Regulations 2004 (EIR), the Data Protection Act 2018 (DPA) and the General Data Protection Regulation (GDPR) (EU) 2016/679. The Department can only refuse to disclose information in exceptional circumstances. Before you submit your response, please read the paragraphs below on the confidentiality of consultations and they will give you guidance on the legal position about any information given by you in response to this consultation.

The FOIA gives the public a right of access to any information held by a public authority, namely, the Department in this case. This right of access to information includes information provided in response to a consultation. The Department cannot automatically consider as confidential information supplied to it in response to a consultation. However, it does have the responsibility to decide whether any information provided by you in response to this consultation, including information about your identity should be made public or be treated as confidential.

If you do not wish information about your identity to be made public please include an explanation in your response. Being transparent and providing accessible information to individuals about how we may use personal data is a key element of the DPA and the General Data Protection Regulation (EU) 2016/679. The Department is committed to building trust and confidence in our ability to process personal information. This means that information provided by you in response to the consultation is unlikely to be treated as confidential, except in very particular circumstances.

For further information about confidentiality of responses please contact the Information Commissioner's Office on **0303 123 1113** or via <https://ico.org.uk/global/contact-us/>

**NB.** Please note that the Department is unable to respond individually to responses; however, a summary of all consultation responses will be published after the close of the consultation period.

## NEXT STEPS

Following the public consultation, a consultation analysis report will be prepared to inform the identification of a preferred option.

This preferred option will then be subject to an Equality Impact Assessment alongside further consideration of the impact on rural communities.

Implementation of the preferred model is subject to the development and approval of relevant business cases.

