What we think about:

Reorganising acute stroke services

Rebuilding lives after stroke

Stroke Association

Background

There is clear evidence that re-organised acute stroke care provides better clinical outcomes. That is why some areas of the UK, such as London, Greater Manchester and Northumbria have made significant progress in reorganising acute or hospital stroke services to save lives, prevent disability and save money. This usually involves concentrating services onto fewer sites and creating Hyper Acute Stroke Units (HASUs) – large centres of excellence operating 24/7 with the best equipment and clinicians under one roof. During this process, smaller neighbouring stroke units may be either closed or changed to stroke rehabilitation wards. Reorganisation is happening or is planned elsewhere in the UK but progress is slow.

What we think

Stroke patients should have access to the best possible treatment and care and a lot of progress has been made in several parts of the UK in recent years to make sure that happens, including reorganising hospital stroke services.

Evidence shows that reorganising stroke services and creating large Hyper Acute Stroke Units (HASUs) with the equipment and experts to treat patients all day, every day, can save lives, improve recoveries and result in greater cost effectiveness for health services. Patients are also more likely to receive the right treatment sooner at a HASU than if they were treated at a smaller stroke unit.

In Greater Manchester and London, where reorganisation first happened, patients now spend less time in hospital and are less likely to die as a result of their stroke. This isn't just the case for stroke treatment. Reorganising some services for heart attack and trauma patients, for example, has led to lower death rates and has been effective in saving money. Early evaluation of reconfiguration in Northumbria shows patients are receiving care faster after centralisation.

We know that some people may be worried about smaller stroke units closing or changing purpose to move to a HASU model. But research has shown that stroke survivors and their carers have positive experiences of care at HASUs, and believe getting the best care was more important than having to travel further.

That's why it's important that any reorganisation is planned carefully, in an open and transparent way that involves the views of those affected by stroke and utilising existing guidance. And of course, it should only happen where it can be demonstrated that stroke patients will benefit.

The evidence is clear that centralised stroke units are more likely to provide effective stroke treatment and we want this to be the case across as much of the country as possible. A lack of progress in reconfiguring acute services means lives and recoveries are being put at risk. That is why we are calling on health leaders in all parts of the country to get on with service reorganisation.

Why do we think this?

Reorganisation can reduce disability, save lives and makes services more cost effective

Over the last decade, there have been big improvements in the way stroke is treated in hospital. Stroke is now treated as a medical emergency and if you have a stroke, you are more likely to be treated by a stroke specialist in a stroke unit. You are also more likely to receive disability-reducing life-saving clot-busting drugs.[1] Research has shown that centralised stroke care also benefits patients with brain bleeds.[2]

While being treated on any stroke unit is better than not being treated on a stroke unit, we know that larger stroke units (HASUs) work more efficiently than smaller ones. Better organised stroke care – as in HASUs – has been shown to reduce mortality.[3] They are better staffed, have the latest equipment, are open 24 hours a day and patients are more likely to get the treatment they need as a result. [4]

Research has shown that reconfiguring stroke services makes the service more cost effective.[5] Since reorganisation in Greater Manchester, stroke patients now spend less time in hospital and the same is true in London. In London, nearly an extra 100 lives a year are being saved thanks to reorganisation.[6] Also in London, there have been savings to the NHS of £5.2 million per year because of reorganisation, or £811 per patient.[7] In Northumbria, centralising three acute units into one HASU reduced the total length of hospital stay patients experienced by nearly 5 days. It also shortened the time taken for patients to receive thrombolysis from admission to hospital by 26 minutes. Importantly, even in this quite rural area, reconfiguration made no difference to the time taken to get patients to hospital after the onset of their stroke.[8]

Reorganisation of acute services does not just apply to stroke. For example, reorganising some acute cardiac services led to a significant reduction in mortality and high levels of patient and carer satisfaction, as well as being cost-effective.[9]

Reorganisation results in more timely access to care

Patients are likely to be given important treatments more quickly if they receive care at a HASU, even in a rural area.[10] Specialist units are set up to undertake rapid specialist diagnosis and treatment such as brain scans and the clot busting drug thrombolysis.

This means that although patients may have a longer travel time to a specialist stroke unit, they will receive care more quickly than at their local stroke unit and it will be delivered by skilled and experienced staff.

Stroke survivors support reorganisation

A big effort needs to be made to explain HASUs to patients and carers if they are to be successful and understood. It has been shown that reorganisation needs momentum from the local health leaders, such as CCGs, STPs, Health Boards and Trusts but it is essential that these health leaders engage with the relevant stakeholders, including patients and carers.[11]

Research has shown that centralised hospital stroke services can offer stroke survivors a good experience of care. Stroke survivors and their friends and family feel that getting the very best care is more important than being treated at their local hospital.[12]

Again, in Greater Manchester and London, this is shown to be working. Despite stroke patients often having to travel further to be admitted to a HASU and family and friends having to do the same when they visit, studies have shown that stroke survivors and their families have been happy with their experience of HASUs.[13]

However, research has also shown that it is vital that stroke survivors and their family and friends are given clear information at every stage of their care to ensure that they understand why decisions about their care are being taken.[14]

So do the experts

There is widespread support for reorganising acute stroke services and it is strongly recommended in the latest RCP guidelines on stroke:

"People with an acute neurological presentation suspected to be a

stroke should be admitted directly to a hyperacute stroke unit which cares predominantly for stroke patients." [15]

NHS England's Five Year Forward View referred to the "compelling case for greater concentration of care" and specifically mentioned the centralisation of stroke units in London.[16] The National Audit Office has said that "stroke patients need to be taken directly to a stroke unit capable of providing hyper acute care". [17] And redesigning acute stroke services is a key part of the National Stroke Programme in England.

Bruce Keogh, the former NHS England Medical Director, stressed the importance of centralisation of care in this video to the UK Stroke Forum in 2017. Reorganisation of stroke services is also included in the Scottish National Clinical Strategy.[18] Hyperacute stroke care and reconfiguration is also included in the Welsh Government Stroke Delivery Plan as part of their review of stroke services [19] and we await a consultation on reconfiguration of services in Northern Ireland too

Progress on reorganisation across the country is slow and patchy

The evidence of how effective reorganisation can be is currently only focused on Greater Manchester, London and now Northumbria, but elsewhere in the UK, for example in Northern Ireland and Wales, reorganisation is either currently underway or being planned. We know that reorganisation is high on the agendas of some NHS Sustainable and Transformation Plans (STPs) in England but that is not the case everywhere.

Several areas have faced challenges in persuading commissioners, politicians and the public that reorganisation works, with vested interests stalling reorganisation plans which would save lives and reduce disability.

What do we want to see happen?

Health leaders and governments must look at the clear evidence of benefits from areas where reorganisation has already happened and make plans for their own reorganisation if they are not already doing so. Where there are concerns from patients and the wider public about closing or changing the purpose of some stroke units, those concerns should be openly addressed and the evidence for reorganising services clearly explained.

It is important that reorganisation is undertaken in a clear and transparent way and that those affected by stroke are involved within the process. Research has shown the value of engagement and consultation with stroke patients. It provides the opportunity to 'manage actual or potential resistance or agitation' to plans, to gain verification that plans are supported by patients, and act a reminder of the ultimate importance of reconfiguration, to achieve high quality stroke care for all patients.[20]

Guidance must be given to NHS providers and commissioners who want to reorganise, including on how best to engage those affected by stroke and wider communities.[21]

Areas looking to reconfigure should have clearly laid out plans, ensuring that the right model gets into practice and is adhered to by all involved. For example, in London (where a 'big bang' single system change took place across the city at one time) there was a coherent plan ensuring that all services involved had the capacity to launch the new system simultaneously. Financial incentives were also used in London to reward standards being met. [22] We welcome NHS England's recently published guidance and this should be replicated across all four UK nations. We also want to see the sharing of best practise between areas which have successfully reconfigured with those that are beginning the process.

We want STPs and ICSs to implement the recommendation of the new National Stroke Programme in England around reconfiguring acute stroke services. We want those running health services in Northern Ireland, Wales and Scotland to learn from the examples of Greater Manchester and London and set out their assessment of whether similar models could work or are already working in their areas.

What are we doing?

- We will continue to ask health leaders and governments across the UK to follow NHS England's lead and provide comprehensive guidance on how to reorganise acute stroke services.

- We will also be asking Sustainability and Transformation Plan 'Footprint' areas (STPs) and Integrated Care Systems (ICS) in England, as well as Boards and Trusts elsewhere in the UK, what steps they are taking to reorganise their services and what barriers they are facing in doing so. We will continue to engage with those who have decided to reorganise to ensure that the needs of stroke patients and their families are being met while asking those who have decided against it why that is the case.

- In Northern Ireland, we are engaging with the NI Stroke Network and Health and Social Care Board (HSCB) on plans to reshape and modernise how stroke services are delivered there – this includes the introduction of hyper-acute stroke units (HASUs). We will calling for the public consultation on this to happen swiftly, after significant delays, and ensure stroke survivors' views are heard. We will be presenting communities with the latest evidence around reorganisation and supporting local involvement.

- In Scotland we will be asking the Scottish Government to be undertaking an evaluation on reshaping of stroke services in Scotland, being informed by the evidence from England and elsewhere as set out in the National Clinical Strategy for Scotland (2016).

- As part of a new National Stroke Programme in England, we will be supporting ICSs to reorganise the acute stroke services in their areas. We will be offering our support to all health professionals and organisations that decide to reorganise. We recognise that reorganisation of acute stroke services can be complex and

controversial, particularly if it involves the closure of existing stroke units. We will be on hand to set out why reorganised services have the potential to significantly improve outcomes for stroke survivors.

- We are working with researchers to better prioritise and utilise the growing evidence around the benefits of reorganising stroke services on saving lives and reducing disability.

Q&A

Q. What, exactly, do you mean by a Hyper Acute Stroke Unit (HASU)?

A. Across the UK, there are various definitions of a HASU. For example, some units describing themselves as HASUs are not even admitting patients 24/7. We agree with the Royal College of Physicians [23] which makes clear that a HASU should include:

- Specialist medical staff trained in the management of stroke patients, including the diagnostic and administrative procedures needed for the safe and timely delivery of stroke treatments;
- Specialist nursing staff trained in the management of stroke patients, covering neurological, general medical and rehabilitation aspects;
- Rehabilitation specialists trained in stroke;
- Diagnostic, imaging and cardiology equipment such as brain scanners;
- Tertiary services for endovascular therapy, neurosurgery and vascular surgery;
- Continuous access to a consultant with expertise in stroke, with a consultant reviewing patients every day.

Q. London and Greater Manchester are mentioned a lot. What has happened there?

A. In London, 30 hospitals providing acute stroke care were centralised into 8 HASUs. Alongside this, 24 stroke units were redesignated as acute rehabilitation units. This reorganisation was designed to ensure that nobody living in London was further than 30 minutes (by emergency ambulance) from a HASU. Evidence suggests that in London, 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.

Reorganisation was initially done quite differently in Greater Manchester. In both London and Greater Manchester, a small number of HASUs were

created to deliver stroke treatment but in Manchester, only patients arriving at hospital within 4 hours of their first symptoms were sent to a HASU. [24] Also, while stroke services in some London hospitals were closed to make way for the HASUs, no services closed in Manchester. [25] As a result, while over 90% of stroke patients were treated in a HASU in London after reorganisation, only 39% were in Greater Manchester. This is as a result of different eligibility criteria for treatment in a HASU. [26] Unlike London, researchers found no significant reduction in mortality for patients treated in Greater Manchester HASUs, but like London, patients did spend less time in hospital. Over the last couple of years, Greater Manchester has moved to a model very like that in London, where the vast majority of stroke patients are taken to a HASU. Manchester stroke services are now performing at least as well as London HASUs.[27]

In Northumbria, centralising three acute units into one HASU reduced the total length of hospital stay patients experienced by nearly 5 days. It also shortened the time taken for patients to receive thrombolysis from admission to hospital by 26 minutes.[28]

Research is ongoing to evaluate the latest changes to services in Greater Manchester and whether the improvements in London have been sustained.

Q. Is reconfiguration just an excuse for closing local stroke units?
A. It certainly shouldn't be. Local stroke units should only be closed if it can be demonstrated that stroke patients will benefit from a reorganised service.

Q. Is reconfiguration just a way to plug staffing gaps?
A. Reconfiguration should not be used simply to plug staffing gaps. Reorganisation should be approached strategically, ensuring that stroke units are most appropriately located and staffed based on geography and the needs of the local population.

However, workforce pressures continue to affect the quality of stroke care across the UK. We support safe ways to address this, such as reconfiguration, as part of wider plans to improve acute stroke services. We also encourage wider efforts by the British Association of Stroke Physicians (BASP) and NHS England to tackle the problems in recruiting and retaining stroke specialists across the UK.

Q. How can travelling further to be treated possibly be a good thing?

A. If you have a stroke, you have a better chance of survival and making a fuller recovery if you are treated in the right way by the right people using the right equipment quickly in a larger specialist stroke unit. That is more likely in a reorganised service, even if the stroke unit you are treated in is located a bit further away than your local hospital. It is important to note that in many cases, you can be treated quicker after travelling for a longer period of time as HASUs are set up for rapid diagnosis and stroke treatment. You are also more likely to be able to get access to the best available treatment such as Thrombolysis and Mechanical Thrombectomy.

Q. Will reconfiguration not stop patients receiving treatment in the 'golden hour'?

A. This comes from the idea that the first hour after a stroke or indeed any traumatic injury is when emergency treatment is most likely to be successful. However access to stroke treatment such as thrombolysis and thrombectomy is not all about speed, such as receiving treatment within the 'golden hour' – it is about ensuring that the procedure is carried out in the most effective setting within the treatment window. These treatments require expert knowledge and infrastructure to diagnose patients, safely deliver treatment and monitor for and treat any complications. Centralising care and creating HASUs ensures these specialist centres admit enough patients to maintain doctors experience and skill level and provide the best quality stroke care.

Q. Will reconfiguration work for people living in rural areas?

A. We recognise that reconfiguration won't look the same in all areas and some more rural areas may need to maintain a local stroke unit for some elements of acute care. However it is important that all health leaders consider the available evidence, and undertake robust modelling work to provide a clear and evidenced based reasoning for not reconfiguring if they decide that it is not right for their local population.

We know that travel times can be challenging factors in rural areas. However recent research into the reconfiguration in Northumbria has shown that centralising stroke services in this rural area led to patients receiving care faster than before reconfiguration, specifically in relation to brain scans and thrombolysis.[29]

Small local units are not set up to provide the evidence based and best quality care that stroke patients need. CCGs, STPs and Health Boards and Trusts need to focus on maximising the likelihood that the population can receive the best stroke care at the right time even if it may slightly disadvantage a very small number of people. Not reconfiguring acute stroke services because of this would potentially disadvantage all their residents by preventing access to best quality stroke care.

Q. Under what circumstances would you not support reconfiguration?

A. While there is good evidence that reorganisation has produced good results in some parts of the country, we recognise that it may not be appropriate everywhere. Reorganisation should only happen where it can be demonstrated that stroke patients will benefit. Those wanting to reorganise need to fully engage with patients and set out how it will happen and how services will improve. If we are satisfied that services will improve as a result of reorganisation, we will support the process in local areas.

Reorganisation should be approached strategically, ensuring that stroke units are most appropriately located and staffed based on geography and the needs of the local population.

Q. Does this policy apply across the UK?

A. Yes. Stroke services in all UK nations have to improve. Too many people are not getting brain scans on time, not getting clot-busting drugs or not receiving immediate rehabilitation support.[30] In Northern Ireland, Scotland and Wales, national plans for stroke are in place, but more needs to be done within these to introduce reorganised acute stroke services.

In Northern Ireland, the introduction of Hyper-acute stroke units was included within the Reshaping Stroke Services pre-consultation in 2017. We strongly supported this within our response to the pre-consultation and we encourage the NI Stroke Network and Health and Social Care Board (HSCB to continue moving forward with the next steps of the consultation process and reconfiguration of stroke services.

The 2018 Scottish Stroke care audit shows that health boards are continuing to fail to give the best stroke care to patients.[31] It is vital that the Scottish government evaluates the HASU model in a Scottish context, as the National Clinical Strategy states.[32]

We support the steps being taken by some of the Health Boards in Wales but want to see all Health Boards look at how to reconfigure stroke services in their area to improve stroke care. The Stroke Delivery Plan in Wales states calls for work on assessing hyper-acute stroke pathways in Wales including the possible re-defining of current Wale Stroke Units with possible impacts for assessment of patients in emergency departments and timely transfer to a HASU. We support this as a step towards reconfiguring services in Wales and encourage further progress on this work.

Policy to be reviewed August 2019

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