

## MIDLANDS AND EAST IMPROVING STROKE SERVICES



HSJ Local Briefing is our new in-depth analysis of the key issues facing the NHS's major health economies

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### In brief

**Issue** The Midlands and East lags behind some other parts of the country in relation to the quality of stroke care. The region has higher than expected death rates and not enough stroke sufferers get treated on specialist wards. Midlands and East Strategic Health Authority Cluster is seeking to deliver the best high-quality care to all stroke patients 24/7.

**Context** There is no money available to deliver the project. London's reconfiguration of stroke services – the inspiration to other projects elsewhere – cost £23m. Risks of a hostile public and political reaction as well as opposition from some providers cannot be eliminated.

**Outcome** Some hospitals in the cluster treat too few patients to provide specialist care around the clock. They are likely to see acutely ill stroke taken to hyper-acute stroke units. This will result in some stroke units closing or being downgraded.

### The national case for change

Approximately 40,000 people die after suffering a stroke in England each year; 12,000 of them are in the Midlands and East. The region has 20,000 hospital admissions after strokes annually. The direct cost to the national NHS of stroke care is approximately £3billion, around four to five per cent of the total NHS budget.

Historically, stroke patients would be made comfortable on a general ward; their families told it was the inevitable consequence of old age and that nothing could be done.

This is no longer the case. Evidence shows that rapid access to treatment can save lives, even reverse the initial symptoms and boost the chance of recovery. For some patients access to thrombolysis, where clot-busting drugs are used to remove the stroke causing clot, can make a dramatic difference to outcomes.

Where a full recovery is not possible intensive treatment soon in the hours after the stroke can reduce the long-term effects, boosting quality of life and cutting the costs of disability for the state.

The National Stroke Strategy, LINK published in 2007, set out clear aims. It said patients should receive

rapid access to clot-busting treatment, brain scans and specialist care in hyper-acute stroke units (HASUs).

Five years later the aims of the strategy have yet to be fully realised.

The primary model of care stubbornly remains, in some areas, focussed on the local hospital with stroke victims going to the nearest accident and emergency department where services may not be best placed to deliver the highest quality of care.

### Performance in the cluster

The Midlands and East SHA cluster launched a plan in January to bring about what it calls a "step change" in stroke services. The scale of the review is unprecedented, covering a quarter of the country stretching from the Welsh border to the Norfolk coast.

It is hoped the project will tackle some of the variation in care which has seen mortality rates remain above national average for stroke. The 30-day death rate was more than five per cent higher than expected in 2010-11, at 105.9, according to the SHA project document (Stroke Project PID).

Making improvements in stroke could save thousands of lives and the

SHA estimates if the number of deaths from stroke in the Midlands region was cut by 30 per cent it would save 3,800 lives a year. Reductions in disability would lead to a better quality of life for survivors and cut the long-term burden on health and social care services.

Sally Standley, who is leading the review for the SHA, said the project was not about closing stroke units, arguing smaller trusts would continue to play a role in longer term care and rehabilitation.

But she said the NHS had not been able to deliver on the stroke strategy and that the SHA hoped that by providing commissioners with an evidence-based service specification, real improvements could be implemented.

She added: "There have been significant improvements in stroke care but we know we can do even better than we are."

### London provides inspiration

The key inspiration behind the review is the runaway success of London's reconfiguration of stroke services in 2010 outlined in the January proposal to the SHA Cluster board (Stroke review proposal).

Before the changes London had 34 hospitals receiving stroke patients, not all of them with an acute stroke unit (ASU). In hospitals where an ASU was present a bed was not always available.

Weekend services were often reduced and volumes of patients varied; at some hospitals less than one stroke patient was seen each week.

The document shows the 30-day mortality rate in the capital ranged from 12 per cent to over 30 per cent in 2006.

A decision was made to reorganise services into eight hyper-acute stroke units fully staffed and with all the equipment needed to

provide services to patients for the first 72 hours after they suffered a stroke.

Once the changes were implemented a marked improvement in stroke mortality was seen, with the rate for deaths within 30 days dropping to 12 per cent for the whole of the city in 2010.

Another key performance target for stroke care is to ensure patients spend at least 90 per cent of their time on a stroke ward.

London managed just 58 per cent in the first quarter of 2009-10 before its reconfiguration but by quarter 1 of 2011-12 it had soared to more than 92 per cent.

### Can the model be adapted to Midlands and East?

Although the Midlands and East has seen improvements its best performance is in the East Midlands region where just 73 per cent of patients spend 90 per cent of their time on a stroke ward. (Stroke review proposal).

While London offers a valuable blueprint, it cannot be grafted easily onto the Midlands and East due the geography and distances involved.

The cluster is also fully aware that in the impending new era of localist clinical commissioning, a change imposed from above is likely to meet greater resistance and be less likely to succeed.

To find a solution the cluster has pulled together an external group of 11 experts including Tony Rudd, stroke lead at the Royal College of Physicians; Charlie Davey, consultant neurologist from the Royal Free Hospital; and Damian Jenkinson, interim director for stroke at NHS Improvement, who will also chair the expert panel.

Using available evidence the panel is expected to finalise a minimum service specification for stroke care setting out exactly what

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patients should receive.

Explaining the rationale behind the review Professor Rudd told HSJ: "The situation is just like in London. The problems we are trying to solve are the health inequalities around the delivery of stroke care.

"There are big variations in the quality of hospital stroke services, big variations in access to the hyper acute units and clot busting treatments, with some parts of the Midlands having 24 hour access and others not having it at all."

Professor Rudd said it was important the whole of the stroke pathway was examined.

He said: "This work is not just about getting more patients thrombolysed; that is perhaps the least important outcome of all. We need to see all patients at all stages of their illness getting the best quality care."

The SHA cluster has asked clinical networks to work together to devise recommendations as to what is needed in their own local area. The SHA cluster has 10 stroke networks covering the region which involve clinicians, managers, and service providers.

The networks will submit their proposals to be assessed by the expert panel; it will decide if they meet the criteria before making final recommendations on whether they should be endorsed to the SHA board.

### Likely specifications

A source close to the review has told HSJ this specification will set a minimum threshold of 600 patients a year to be seen in each HASU. At present the majority of hospitals in the SHA cluster see less than 500 stroke admissions a year.

Across the Midlands and East region there are more than 40 hospitals admitting acute stroke patients. While some larger trusts

such as University Hospitals of Leicester, Nottingham University Hospitals and Derby Hospitals see in excess of 1,000 stroke patients a year the majority see far fewer, raising questions about their long-term sustainability. Hospitals supplying stroke patient data to the Royal College of Physicians audit does not give accurate statistics for each hospital's admissions with a number of trusts in the Midlands not submitting data.

Regionally the SHA Cluster has said some of the smaller hospitals admitting stroke patients may see only two people a week, while larger trusts will admit as many as three a day.

HSJ has been told the expert panel is unlikely to support the retention of stroke units at hospitals with the smaller volumes because they will be unable to maintain clinical skills and standards.

One consultant working at an East Midlands hospital said: "People want to do sexy things and thrombolysis is sexy in stroke which means quite a few hospitals who don't do it struggle to fill their jobs. This means patients might not get the best care all of the time.

"You can't justify this kind of acute care in a DGH [district general hospital].

"The hyper-acute care has to be concentrated in central areas but after that you need to get people back to their local hospital as quick as you can."

He added: "The back end of the pathway often causes us a problem, patients have had their hyper-acute and acute care but we can't get them out. That needs to be looked at."

### The cost of change

Predictably, finance is a problem. When London's stroke services were changed the health authorities there ploughed an extra £23m into

hospitals to help upgrade units.

A majority of the money went on staffing costs to ensure the new HASUs had the appropriate number of specialist staff such as speech therapists, dieticians, occupational therapists, psychologists and physiotherapists.

HASUs in London had 12 consultant medical staff who were either stroke-trained neurologists or general physicians with expertise in stroke working 24/7, with a nurse-to-bed ratio of 2:9 and a registered trained nurse to untrained healthcare assistant mix of 80:20.

No extra resources are available in the Midlands and East and commissioners and trusts are facing continuing demands for efficiency savings.

In its own project papers (Review Proposal) the SHA cluster admits: "Resources are not available for either the investment programme or the infrastructure for the programme itself and the savings cannot be released."

But the review is aiming to show that by implementing changes to stroke care it can generate significant savings with fewer patients admitted to intensive care, shorter lengths of stay in hospital, fewer patients going into care and smaller numbers of patients left disabled.

It is hoped these improvements will persuade commissioners to press ahead with the reforms even if there is no extra investment.

### Previous work in the East Midlands

With a population of 4.5 million, there are currently seven hospitals in the East Midlands which admit hyper-acute stroke patients of which three, Leicester, Derby and Nottingham, provide a thrombolysis service on site 24/7.

This number is due to rise in coming months with United Lincolnshire Hospitals Trust, Northampton General Hospital Trust and Sherwood Forest Hospitals Foundation Trust all offering thrombolysis to acute patients.

The East Midlands, where around 3,400 people die as a result of a stroke each year, reviewed its services in 2008-9, resulting in a reduction in acute units and the introduction for the first time of a thrombolysis service at the main hospital centres.

This alone is believed to be saving the lives of approximately 90 patients a year.

The 2008-9 review was followed in July 2011 with a string of service assessments by a team which included members from the Stroke Network, NHS Improvement and commissioner and patient carer representatives.

The assessment revealed that although improvements had been made in the three previous years, there was still significant variation in care quality.

The SHA believes previous projects have not been "consistent in their scope, process or standards" and hopes its regional review will end the variation.

Rebecca Larder, director of the East Midlands Stroke Network said the new review of stroke services would "enable us to focus on other parts of the patient pathway, namely longer-term care which has not been a real area of focus locally to date but is very important".

But she accepted there were key challenges including NHS reform, a challenging financial outlook and a shortage of stroke physicians.

She added the lack of extra resource meant the networks had to be "more creative" and learn from previous work.

What has happened in the West

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### Midlands

In 2010 a review of stroke services by the West Midlands Regional Quality Review Service was carried out in the West Midlands against a set of standards developed in the region.

The review team included a stroke consultant, stroke nurse and members of the stroke network.

As a result of the review which included site visits it was found there was significant variation in the quality of care provided in the West Midlands. The West Midlands 30-day mortality rate figure in 2010-11 was the highest of the Midlands regions at 109.

### East of England

The East of England Stroke Networks also carried out their own review in 2009 to examine the capacity for thrombolysis to be delivered on a 24/7 model as well as core stroke services.

A multidisciplinary team from the Royal College of Physicians visited hospitals and produced reports for each local system.

But recommendations from the RCP were not implemented by some local providers and the geography of the region has led to acute stroke services being provided in each local hospital. Again the process highlighted wide variation in quality of care and room for further improvement.

### Challenges

The NHS itself could resist change. Closing down a stroke service, or making significant changes to its operation has a knock-on impact on A&E, radiology, neurosurgery, vascular surgery, hospital-based rehabilitation services, general medicine and neurology.

For some smaller district general hospitals the removal or downgrade of stroke services could be a step too

far and they may come out fighting.

Professor Rudd said there was “no doubt some trusts” would not meet the new standards, adding: “There will be losers and winners in this system and there will be hospitals who will fight very hard. It will take pretty strong leadership from the SHA to push it through.”

One hospital doctor working with stroke patients warned opposition to closure plans could be a serious threat. “There are always going to be hospitals fighting for their services, even if they accept the argument against it,” he said.

“There may be one or two hospitals who are surprised but most already know where they fall.

“Whenever you close a unit people will cry wolf but we need to present it to patients in the right way.”

The SHA cluster is keen for there to be consensus and agreement on what needs to happen. However, it has made clear that where there is a disagreement the project’s external panel of experts will make a final recommendation to the SHA cluster board which will impose a solution.

The reconfiguration takes place at a time of great instability with the clinical networks themselves expected to be in a transition year in 2013-14 as the government reviews their role. Details of this review have still to emerge. This is coupled with the abolition of SHAs and PCTs who will cease to exist in April and replaced by clinical commissioning groups and the NHS Commissioning Board.

The appetite of CCGs to embark on major reconfiguration was described by one clinician as a key problem: “When bodies change, it can’t be avoided. There will be a sort of nebulous zone and it would be better to get it done before the SHA disappears as then there will be a year or two where nothing will

happen.”

The SHAs’ disappearance in April next year has also meant a tight timetable for the review to be completed.

Professor Rudd said: “Unless we get it done by April the chances are we will have missed the boat.

“The new commissioning groups will not be in a position to do this so we need to get it at least to a point where it’s hard to row backwards.”

### Likely outcome

Services are likely to be further centralised – beyond the levels seen in the East Midlands - to ensure patient volumes are sufficiently high to maintain clinical standards.

But the region has challenges in terms of geography which mean taking acute services away from some of the more isolated trusts will not be possible. The service specification is likely to demand patients be treated within 60 minutes and preferably within 30 minutes. If thrombolysis is not given within the first three hours it becomes less likely to be successful.

These challenges are likely to lead to a greater use of telemedicine and specialist stroke consultants rotating from smaller hospitals to larger units to enhance their skills and experience.

Smaller units could continue to take acute patients with on-call consultants provided from larger centres providing care via video and cameras. This is seen as the next best option for those patients in isolated areas.

Some areas see the number of acute stroke units reduced in a similar model to that seen in London. Where there are larger urban centres, such as in the West Midlands around Birmingham and the Black Country district general hospitals are continuing to see their own acute patients but their volume of work

could fall beneath the minimum expected.

The changes will be implemented by commissioners after the SHA is abolished.

If successful the project could not only improve standards of care and save lives it could make a significant contribution to the region’s need to make efficiency savings.

### A timetable for change

It is unlikely the changes will be implemented with a single go-live date, due to the different regions being at different stages.

Later this year the modelling exercise to assess the current services and the likely impact of suggested changes will have been completed by consultants Deloitte. The full service specification will be accepted and final plans drawn up for each of the regions.

A public consultation may have to be carried out in the autumn but by early next year the preferred options will be selected and approved ready for commissioners to begin the process of change going forward.

The cluster board is expected to make a final decision on proposals in the spring of 2013.