

Proposal to deliver a centralised hyper acute stroke service at the Royal Derby Hospital

Case for Change

Background

According to the National Stroke Strategy, key changes in stroke care have contributed to a reduction in the chances of a patient dying within 10 years of having a stroke, from a 71% chance in 2006 to a 67% chance in 2010.

Based on the National Stroke Strategy, the London Stroke Model, which is the model used for the Derby & Burton proposal, was developed to look at care throughout the stroke service, including the establishment of Hyper-Acute Stroke Units (HASUs).

The model includes the treatment of patients taking place in fewer specialist HASUs, Acute Stroke Units (ASUs), and being provided with improved Early Supported Discharge. This reduction is largely due to improved co-ordination in stroke care, more patients receiving thrombolysis when needed, and more patients receiving scans within 24 hours of admission to hospital, so that the optimum treatment and care can start as soon as possible. This approach would be supported through the proposal being considered by the Trust.

Clinical Case for Change

The Sentinel Stroke National Audit Programme (SSNAP) has highlighted that hyper-acute stroke services are more likely to be clinically effective if they are admitting between 600 and 1500 cases per year.

Queens Hospital Burton (QHB) admits fewer than 500 Hyper Acute Stroke Unit (HASU) patients a year (405 in 2017/18, 393 patients in 2016/17, and 410 patients in 2015/16). This is below the national best practice minimum of 600, meaning stroke doctors and nurses in some of our units' risk becoming deskilled.

There is evidence to show that stroke patients treated at hospitals which provide 24/7 specialist stroke consultant-delivered care have lower mortality rates and lower rates of long-term disability post stroke event.

National evidence shows that patients are 25% more likely to survive or recover from a stroke if treated in a specialist centre. Patients need fast access to high-quality scanning facilities in order to diagnose the type of stroke and assess those who are suitable for thrombolysis and those who would benefit from other treatments.

The Sentinel Stroke National Audit Programme (SSNAP) also notes that larger services are more likely to be financially viable, with a typical breakeven point of approximately 900 admissions per year (on the assumption that all patients were eligible for the best practice tariff). NHS England's 7 Day Services Clinical Guidance also notes these findings in relation to larger facilities.

QHB has a higher than expected mortality for confirmed strokes, with a Summary Hospital-level Mortality Indicator (SHMI) of 1.21 which implies 20 per cent more deaths than expected.

Centralisation of clinical services is a nationally recognised service model for delivery of stroke services. This model ensures clinical sustainability and quality care for patients.

Overall, this proposed new model would provide a 'Centre of Excellence' for patients in the whole of the Burton and Derby area, meaning that all stroke patients would receive the same level of specialist care in hospital, and the same level of rehabilitation, as near to their homes as possible. All the hospitals, community beds and care in people's homes would have their part to play in providing this 'Centre of Excellence'.

The Current Model

Under the current arrangements stroke services are provided by both Queens Hospital Burton and Royal Derby Hospital.

Royal Derby Hospital delivers a stroke service to the population of Derbyshire, including a seven-day hyper acute stroke service and high risk seven-day Transient Ischemic Attack (TIA) service.

Queens Hospital Burton Stroke services are delivered to patients from East Staffordshire, South East Staffordshire and the Swadlincote area of Southern Derbyshire. This includes a hyper acute stroke service and currently a five-day, Monday to Friday TIA service.

The Proposed Future Model

The proposed future model is that hyper-acute stroke medicine would be delivered via a centralised service model at the Royal Derby Hospital (RDH) site. Patients experiencing a stroke would be treated at RDH in the Hyper Acute Stroke Unit (HASU) for the first 72 hours of their care. Patients would then be moved as appropriate to a local service for hospital and/or rehabilitation care post stroke.

The proposal is for all hyper acute, mimic stroke and weekend TIA patients to be treated at RDH rather than QHB.

A single referral point for Transient Ischemic Attack (TIA) would be established, allowing for the seven-day service currently provided at RDH to be extended to the whole population of the merged Trust.

Weekend patients would benefit from Rehabilitation and post stroke therapy provision seven days a week at both Burton and Derby sites with additional therapists available. Patients admitted into Royal Derby Hospital would receive stroke specific therapy input at the weekend. These changes have been designed to drive a number of significant patient health benefits.

As part of the proposals TIA patients who otherwise would have presented at hospital over the weekend would be able to access preventative treatment within 24 hours, in contrast to current practice of waiting until Monday. This means that TIA patients would be provided with a service which is compliant with NICE clinical guidelines

The proposed change to the patient pathway is as follows:

- All Hyper Acute (first 72 hours of care) patients would be treated at RDH and then stepped back down to QHB for acute care, rehabilitation and discharge to community services or care closer to home.
- Rehabilitation programmes following stroke would remain the same as they are currently
- All mimic stroke patients would be seen in Derby and treated and discharged from Derby.
- All TIAs that present at the weekend would be treated at RDH and discharged to community or follow up care at QHB.
- Follow up clinics for Burton patients, post stroke or TIA would be provided at QHB.
- New treatment regimens for stroke patients, for example thrombectomy, would be supported by the RDH, but will mean patients follow a defined clinical pathway and this may include treatment at a very specialist hospital.

- West Midlands Ambulance Service (WMAS) and East Midlands Ambulance Service (EMAS) – the ambulance services that bring patients to QHB and RDH – have been engaged and are supportive in principle of the new hyper acute pathway and the requirement for conveyance to the Derby site as the acute/hyper site.

The national trend, led by London Acute Trusts, is towards fewer, larger stroke sites. Delivering services to the local population of Derby and Burton in line with this model would ensure that UHDB, is able to future proof the expected increase in minimum numbers of stroke patients based on national assumption profiles.