NHS
Newark and Sherwood
Clinical Commissioning Group

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Mansfield and Ashfield
Clinical Commissioning Group

NOTTINGHAMSHIRE COUNTY COUNCIL

HEALTH SCRUTINY COMMITTEE 26th January 2015

Briefing on the Provision of Hyper-Acute Stroke Services within Nottinghamshire

1. Overview and Background

A broad definition of a stroke is the sudden death of brain cells due to an inadequate blood flow in the brain. A stroke can cause paralysis, speech impairment, loss of memory and reasoning ability, coma, or death. There are a number of causes of strokes with the vast majority caused by either bleeding in the brain or a clot that obstructs the flow of blood. Strokes caused by a clot have a time crucial treatment called thrombolysis.

The National Stroke Strategy (2007) sets out a significant number of Quality Markers aimed at ensuring consistent, safe and effective care for people who suffer a stroke. Quality Marker 7 requires that "all patients with suspected acute stroke are immediately transferred by ambulance to a receiving hospital providing hyper-acute stroke services…"

The strategy and National Institute for Clinical Excellence (NICE) guidance also sets out that a patient requiring thrombolysis (clot busting treatment) should be given the drug within 4 hours of onset.

A patient that arrives at a Hyper-Acute Stroke Unit (HASU) within four hours of experiencing stroke-like symptoms, will be assessed immediately by stroke experts to see whether they have had a stroke. If a stroke is thought likely they will be immediately taken to a CT scanner to find out whether their stroke has been caused by a clot (an 'ischaemic stroke') or a bleed (a 'haemorrhagic stroke'). If a blocked artery is the cause thrombolysis treatment is then infused intravenously.

Patients get more benefit from stroke thrombolysis the earlier they are treated. We record the exact time that every patient arrives (this is called the 'door' time), and other essential steps along the way up to the point where the drug injection starts (the 'needle' time) this is called the door-to-needle time and is the crucial time (4 hours) for safe and effective thrombolysis treatment.

2. Nottinghamshire Hyper-Acute Stroke Unit (HASU)

In the County there is a two-site partnership model for hyper-acute stroke services. This was set up to ensure the provision of relevant clinical expertise and equipment across Nottinghamshire. The two sites are Kings Mill Hospital (part of Sherwood Forest Hospitals Foundation Trust) and Nottingham City Hospital (part of Nottingham University Hospitals). In 2008/9 the Strategic Health Authority approved Sherwood Forest Hospitals Kings Mill site and Nottingham University Hospitals City Hospital site, with a shared medical rota and governance as a Hyper-Acute Stroke Unit (HASU). This working arrangement is called the Nottinghamshire Stroke Partnership.

The Nottinghamshire Stroke Partnership service was set up to deliver:

- Improved clinical outcomes
- Improved quality of life outcomes e.g. reduced level of disability following a stroke
- An excellent patient and carer experience e.g. experience across the whole pathway and including improved access
- Evidence based standards 24/7 for all patients

Up to 2013 both sites ran a 24/7 service but due to a reduction of consultant staff (a consultant moved to work elsewhere in the NHS) at Kings Mill Hospital, an amended working arrangement was agreed. Nottingham City Hospital provided a 24 hour 7 day a week hyper-acute service and Kings Mill Hospital operated 09:00 Monday to 17:00 Friday, inclusive. Recruitment to additional consultant posts at the Kings Mill site was sought with the aim of then returning to the two sites providing 24/7 services.

The amended local pathway was that any patient identified as potentially needing thrombolysis treatment from 17:00 Friday to 09:00 Monday would be taken to Nottingham City Hospital. The stroke consultant rota at Kings Mill Hospital finished at 18:00 on Friday. This was to ensure time to deliver thrombolysis treatment, patients arriving by ambulance were accepted up to 17:00 after which patients were taken to Nottingham City Hospital.

This process had worked successfully until December 2013 when a patient experienced a journey to Kings Mill Hospital and was then diverted when only minutes from the Kings Mill site.

3. Current provision of Hyper-Acute Stroke in Nottinghamshire

Following a Nottinghamshire wide serious incident investigation and learning review, changes have been made to ensure such a diversion and associated poor patient and family experience could not occur again.

Acute thrombolysis service on both sites (24 hours, 7 days a week) was recommenced on 4th August 2014. This is again being delivered through a shared governance process and shared rota. The teams use Telemedicine to ensure that timely and effective consultant management of suspected strokes is delivered. This therefore means the patient can be taken to the nearest of the two sites and thrombolysis is not dependent upon a consultant being on that specific site. The partnership will monitor the outcomes through the partnership governance arrangements.

4. Conclusion

The two site 24/7 model is delivering safe services for the population of Nottinghamshire. Commissioners have joined the Nottinghamshire Stroke Partnership Board to ensure standards are assessed and challenged.

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