NHS
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Acute Stroke Care Policy

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V1.1	01/13	Jacqui Crossley	D	Revised to reflect current practice and reformat in 2013 policy template. Included NHSLA level one matrix to CGG in January 2013
V1.2	04/13	Jacqui Crossley	D	Revised to reflect the inclusion of 111
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V2.1	02/18	Katrina Dixon	D	Revised/rewritten to reflect current practice
V 2.2	03/18	Jacqui Crossley	D	Amendment post CGG to add TIA refreshed template
V3.0	05/18		A	TMG
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A = Approved D = Draft				
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Associated Documentation: Acute Stroke Pathway 24/7 South Yorkshire Hyper Acute Stroke Pathway 24/7 Direct to Scan procedures Mechanical Thrombectomy IFT process for LGI, STH and Hull Assessment Conveyance and Referral of Patients (Emergency Operations)				

Staff Summary

This policy covers the

Role of Yorkshire Ambulance Service in improving outcomes for patients with symptoms of acute stroke
Up- to- date national information on acute stroke patient management
Partnership working to deliver high quality stroke care delivered across Yorkshire Ambulance Service
Hyper-acute Stroke Pathway and clinical assessment
Ambulance Response Programme
Responsibilities of Yorkshire Ambulance Service
New Stroke treatments - Thrombectomy

1.0 Introduction

1.1 Stroke is a major health problem in the UK. The Stroke Association's report, 'State of the Nation' highlighted that there are more than 100,000 strokes in the UK each year and that stroke is the 4th biggest killer in the UK. In 2016 almost 38,000 people died of stroke. Most people survive a first stroke, but often have significant disability as a result. About 1.2 million people in the UK live with the effects of stroke, and over a third of these are dependent on other people. (NICE Quality standard 2010 updated 2016).

1.2 Yorkshire Ambulance Service (YAS) works collaboratively with health and social care partners to deliver an effective service to patients presenting with symptoms of an acute stroke to optimise clinical outcomes and reduce long term disability and death.

2.0 Purpose/Scope

2.1 This policy will:

- Set out how high quality stroke care is delivered, monitored and developed.
- Outline the role and responsibilities of YAS clinicians in the assessment and management of patients with symptoms of a suspected acute stroke in line with best practice.
- Outline how YAS works with partner organisations to develop timely assessment and treatment of patients with signs of a suspected acute stroke, developing timely access into stroke services across Yorkshire and Humber.

3.0 Process

3.1 Identification and management of patients presenting with symptoms of a stroke in the Emergency Operations Centre (EOC) and Integrated Urgent Care (IUC) call centre.

3.1.1 All patients contacting EOC or IUC with stroke symptoms must be assessed using NHS Pathways/Advance Medical Priority Dispatch System (AMPDS) algorithms to ensure they receive a timely response in accordance with the national Ambulance Response programme (ARP) standards.

3.1.1 Requests for an Inter Facility Transfer to a HASU for thrombolysis or for mechanical thrombectomy will be managed through the national IFT process and matched to a Category 2 response.

3.2 Management of patient presenting with symptoms of a stroke during a face to face assessment.

3.2.1 All patients presenting with suspected stroke must be assessed as per the JRCALC UK Clinical Guidelines. The most sensitive features associated with diagnosing stroke in the pre-hospital setting are unilateral facial weakness, arm or leg weakness, and speech disturbance and ambulance clinicians must identify suspected stroke patients using the FAST tool. (NICE guidance 128). The Acute Stroke Pathway also includes non-traumatic unilateral vision loss

3.2.2 Ambulance clinicians must also be aware of other symptoms and signs that suspected stroke patients may present with including sudden onset dizziness, confusion, severe headache with unknown cause, syncope, altered gait, difficulty in speaking or understanding others. These symptoms are not included in the current agreed stroke pathway, but should generate a clinical discussion with a HASU for consideration in the stroke pathway or rapid transfer to ED for further assessment.

3.2.3 Ambulance clinicians must exclude hypoglycaemia in patients with sudden onset of neurological symptoms

3.2.4 Ambulance clinicians must minimise time on scene if they suspect an acute stroke

3.2.5 Ambulance clinicians must document the FAST assessment, time of onset of symptoms, affected side of weakness, blood glucose measurement, blood pressure measurement and conveyance and pre-alert to HASU, in addition to the existing health records standards.

3.2.6 Ambulance clinicians must follow the Acute Stroke Pathway (West, North and East Yorkshire) or the South Yorkshire Hyper Acute Stroke Pathway and all patients who meet the criteria must be conveyed as a TIME CRITICAL emergency to a Hyper Acute Stroke Unit (HASU), and direct to CT scan if available.

3.2.7 Patients presenting with a suspected Transient Ischaemic Attack (TIA) (including when there is complete resolution of symptoms) must be managed as per the relevant stroke pathway and transported to a HASU.

3.2.8 Ambulance staff tasked to support an Inter Facility Transfer of a patient for thrombectomy should follow the Mechanical Thrombectomy procedure relevant for the receiving hospital.

3.3 Development and maintenance of stroke care pathway

3.3.1 The Yorkshire and Humber Cardiovascular Disease network is tasked by NHS England primarily with coordinating all health and social care services to focus the delivery of the National Stroke Strategy. Networks are made up of senior clinicians, CCG representatives with responsibility for stroke service development, and have sign-off responsibility for their organisation

3.3.2 The Urgent and Emergency Care networks oversee much of the work around integration of services and as the ICS develop there is an expansion of hosted networks across the 3 areas (HCV, SYB and WYH). At the time of writing the SYB ICS had set up the Stroke Hosted Network to convene and facilitate collaborative working between the 5 acute Trusts, to match the ambitions of the NHS Long Term Plan.

3.3.3 Sign-off of the single stroke pathway was agreed in August 2012 through all the clinical Network boards, YAS Clinical Governance Group and issued to YAS clinical staff. The subsequent changes to the pathway have been agreed at local level and as part of the reconfiguration work. The Acute Trust providing the HASU services are responsible of setting the acceptance criteria and the Stroke Lead will continue to monitor and update the acute stroke pathway as required by the local HASU.

4.0 Consultation Process

4.1 This policy has been reviewed and reflects the changes to practice and pathways made following consultation with the managed clinical network. These networks are comprised of other healthcare providers and their patient representatives and provide advice to the Integrated Care System ICS on system wide changes to improve stroke care and patient outcomes. YAS are part of this forum and advise on the pre-hospital element of the pathway.

4.2 Pathway procedures are tested for clarity and ambiguity by operational staff, through clinical advisory groups, Clinical Quality Development Forum (CQDF) and feedback gained through staff engagement at road show events, this feedback allows for the pathway to be amended for use if needed before implementation.

5.0 Approval Process

5.1 The Clinical Governance Group is the responsible committee for this policy and the policy is approved by the Trust Management Group.

5.2 The Acute Stroke Pathway must be approved by the Clinical Governance Group following any update and prior to publication.

6.0 Training expectations for staff

6.1. All patient facing staff must be trained and competent to identify and manage patients presenting with a suspected stroke as per their scope of practice. All staff must be trained and competent in the FAST assessment.

6.2 All non-patient facing clinicians and all staff involved in providing patient care (including those working in IUC and EOC) are responsible for ensuring they remain up to date with stroke pathways and any changes that occur.

7.0 Implementation Plan

7.1 The stroke pathways are available to access on YAS 'Pulse' in the Acute Referral Pathways section under Clinical Pathways and on the JRCALC Plus app. These are current and version controlled and any previous versions archived. Changes, version control and upload of new documents are managed by the Clinical Pathways Team.

7.2 The latest approved version of this Policy will be posted on the Trust Intranet site.

7.3 Changes are communicated by the stroke lead through Corporate Communications and via clinical managers, team leaders and operational leads. The stroke pathway and policy information is also available through the clinical hub.

8.0 Monitoring compliance with this Policy

8.1 Organisational participation with managed clinical networks

Attendance and participation at clinical network meetings and updates on changes and progress is monitored via the Lead Pathways Manager

8.2 Minimum standards for stroke care

The stroke care standards are measured through the National Ambulance Clinical Quality Indicators (ACQI) using the Sentinel Stroke National Audit Programme (SSNAP). Stroke records are supplied by ambulance services and acute trusts to SSNAP who then send aggregated data to NHS England for publication. The stroke standards consist of the stroke diagnostic bundle (documentation of a FAST assessment, and blood glucose, systolic and diastolic blood pressure recorded), and the time from call connect to hospital arrival, time from hospital arrival to CT scan, and time from hospital arrival to thrombolysis.

8.3 Monitoring incidents and complaints

All incidents and complaints regarding stroke care and the stroke pathway must be recorded in Datix and identified as a patient pathway concern.

9.0 Roles & Responsibilities

9.1 Clinical Governance Group (CGG)

CGG will have responsibility for this policy and will ensure that all new process changes for the delivery and monitoring of acute stroke care are reviewed and approved prior to implementation.

9.2 Executive Medical Director

The Executive Medical Director is responsible for safe patient care and clinical quality.

9.3 Lead Pathways Manager

The Lead Pathways Manager is the Trust Stroke Lead and is responsible for developing and producing this policy and the stroke pathways. They are responsible for the review of NICE and other relevant guidance to ensure practice is current and changes to clinical skills requirements are communicated through workforce and education.

The Lead Pathways Manager is the Trust representative on stroke at local and regional networks. They provide expert advice on the pre-hospital management of suspected strokes to the organisation and at external meetings.

The Lead Pathways Manager is responsible for monitoring and responding to patient complaints, incidents and service to service feedback regarding the stroke pathway.

9.4 YAS Academy

The YAS Academy is responsible for delivery of adequate training incorporating the current guidance on assessment and management of patients with stroke as per JRCALC. The minimum standard of assessment for stroke is the Face Arm Speech assessment. In addition all clinical staff should be made aware as part of the patient assessment process to consider a stroke when a patient presents with other less common symptoms including unilateral weakness of upper and lower limb, vision changes or loss of vision, acute severe headache with unknown cause, acute dizziness/syncope or altered gait, Sudden confusion, difficulty in speaking or understanding others.

9.5 Clinical/Clinical Development/Operational Managers

The clinical managers are responsible for undertaking analysis and quality improvement in the care provided by YAS for those patients with a suspected stroke. The Clinical Development Managers undertake Clinical Case Reviews (CCR) to enhance individual learning following any incident where care has not been delivered as per minimum standards. These recommendations are shared with the operational managers and included as actions for improvement in local Clinical Business Units (CBU).

9.6 YAS clinicians

YAS clinicians are responsible for providing high quality, person centred, evidence based care for patients with a suspected stroke. They are responsible for providing a

systematic clinical assessment of the patient, including a FAST assessment in all patients presenting with a suspected stroke, adherence with the diagnostic care bundle, minimising on scene time, adherence to the stroke pathway and rapid conveyance and pre-alert to a HASU.

10.0 References

Joint Royal Colleges Ambulance Liaison Committee (JRCALC) UK 2020 Ambulance Clinical Practice Guideline www.jrcalc.org.uk

NHS England (2019) NHS Long Term Plan www.longtermplan.nhs.uk

Stroke Association. (2012). *Suspect a Stroke Act FA ST*. London: Stroke Association. www.stroke.org.uk

NHS England revolutionary new treatment *NHS England 11/4/17* www.england.nhs.uk/2017/04/stroke-patients-in-england-set-to-receive-revolutionary-new-treatment/

NICE (2019) Stroke and Transient Ischaemic Attack in over 16s: diagnosis and initial management. https://www.nice.org.uk/guidance/ng128

NICE (2016) Stroke in Adults QS2. https://www.nice.org.uk/guidance/qs2

Hyper Acute Stroke Services Yorkshire & the Humber Clinical Commissioning Groups June 2016 https://smybndccgs.nhs.uk/download_file/186/160

Stroke Association (2018) '*State of the Nation. Stroke Statistics*'. Available at: https://www.stroke.org.uk/sites/default/files/state_of_the_nation_2018.pdf

11.0 Definitions

11.1 Stroke

A stroke occurs when blood flow to part of the brain is interrupted, causing damage to the brain tissue. The two main causes of stroke are blood clots, blocking arteries (ischemic 85% of all strokes) and arteries rupturing (haemorrhagic 15% of strokes). The diagnosis and type of stroke is confirmed using a CT image of the brain.

11.2 Transient Ischaemic Attack (TIA)

TIA is like a stroke but the symptoms resolve within 24 hrs. There are high and low risk groups identified through focused assessment tools, these patient groups are managed differently by specialists. High risk TIA is referred to hospital for early investigation and treatment to reduce the risk of the developing a full stroke. YAS clinicians refer all patients with any sign of stroke to an acute stroke service to ensure all patients receive a timely assessment and specialist treatment.

11.3 Stroke Thrombolysis

Thrombolysis (clot busting) is a treatment that has proven to be effective in treating a stroke caused by a clot, if given within four and a half hours of onset of symptoms. Using this drug early makes it more likely that patients will make a good recovery from their stroke. The drug called rt-PA is given through a drip over one hour and works by dissolving the clot that has blocked the artery and stopped the supply of blood to part of the brain.

11.4 Stroke Thrombectomy

An estimated 8,000 stroke patients a year are set to benefit from an advanced emergency treatment which can significantly decrease the risk of long-term disability.

Mechanical clot retrieval for treating acute ischemic stroke aims to remove the obstructing blood clot or other material from arteries within the brain, restoring blood flow to the brain and minimizing brain tissue damage. A delivery catheter is inserted usually through the femoral artery in the groin, and advanced into the occluded artery

using X-ray. Many patients will also have had initial treatment with intravenous thrombolysis.

11.5 Face Arm Speech Time to call 999 (FAST)

The FAST test is the nationally accepted test used to identify those patients with a potential stroke as an emergency. Used by the both the public and health professionals it aims to rapidly identify patients with a sudden onset of any one the neurological symptoms, and transport to a centre with hyper-acute stroke care facilities. Both EOC and all YAS frontline clinicians use in addition to FAST include those with sudden weakness in a lower limb and/or unilateral vision loss, as a potential sign of stroke.