NHS
South Central
Ambulance Service
NHS Foundation Trust

SOUTH CENTRAL AMBULANCE SERVICE NHS FOUNDATION TRUST

CLINICAL SERVICES POLICY & PROCEDURE (CSPP No. 19)

STROKE CARE POLICY AND PROCEDURES

September 2018

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Author: Dave Sherwood Assistant Director of Patient Care	**Consultation & Approval:** Staff Consultation Process: (21 days) ends: Clinical Review Group: 23rd August 2018 Quality and Safety Committee: Board Ratification: N/A
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APPENDICIES

Appendix 1

South Central Cardio-Vascular Network Ambulance Service Specification 6

SOUTH CENTRAL AMBULANCE
SERVICE NHS FOUNDATION TRUST

STROKE CARE POLICY AND PROCEDURES

1.0 SCOPE OF THE POLICY

1.1 This Policy outlines the Trust's current arrangements to respond, assess, diagnose, treat and transport to the most appropriate centre for all suspected cases of stroke.

2.0 POLICY STATEMENT

2.1 Ensure that South Central Ambulance Service NHS Foundation Trust staff are able to identify and respond to patients with suspected stoke in a timely manner, perform an adequate assessment of their condition and convey them to an appropriate facility.

2.2 The Trust acknowledges the guidance provided in the AACE/JRCALC Guidelines 2016 and 2017 supplement.

3.0 DUITES

3.1 Accountability for the treatment and care of stroke patients is ultimately with the Trusts Chief Executive; however this can be devolved within the Trust Board to a Medical Director if appropriate.

3.2 **Medical Director**

The Medical Director has Board level responsibility for the implementation of this policy within South Central Ambulance Service NHS Foundation Trust. The Medical Director also chairs the Clinical Review Group with responsibility for ensuring the most effective care of Stroke victims.

3.3 **Assistant Director of Patient Care**

The Assistant Director of Patient Care has senior management responsibility for ensuring that the stroke pathway is monitored and reviewed. The role also has a responsibility to link with the Cardio-Vascular networks via direct reports.

3.4 **Clinical Review Group**

The Clinical Review group will assess the effectiveness of stroke care and co-ordinate the production of gap analysis and action plans for the Governance Committee to monitor.

3.5 **Quality and Safety Committee**

The Quality and Safety Committee will monitor the effectiveness of stroke care, and highlighting any risks on the risk register, within the Trusts governance structure. The Quality and Safety Committee will monitor the financial implication of stroke care ensuring that the Trust Board is aware of any significant risks or funding associated with the implementing or any changes to stroke care.

4.0 AIMS AND OBJECTIVES

4.1 Ensure that South Central Ambulance Service NHS Foundation Trust staff are able to identify and respond to patients with suspected stoke in a timely manner, perform an adequate assessment of their condition and convey them to an appropriate facility.

5.0 GENERAL CARE

5.1 The Trust works to the guidance provided in the AACE/JRCALC Guidelines 2016 and 2017 supplement and all staff will be made aware when there are updates and changes to this information.

5.2. Over and above providing basic and advanced clinical care in line with approved clinical guidelines and Trust policies staff will deliver appropriate clinical care to patients believed to have suffered a stroke.

5.3. Patients will be conveyed to the most appropriate centre in line with the South Central Stroke Care Ambulance Service Specification (Appendix 1).

6.0 MONITORING

6.1 The Policy will be monitored for its effectiveness by the Assistant Director of Patient Care through the following:

- Responsibilities of staff will be monitored through attendance at meetings, management of systems, development of reports and the appraisal process.
- The process for finding reviewing and action planning will be monitored by the Clinical Effectiveness Department and a report produced bi-annually to the Quality and Safety Committee covering:
    - Number of Stroke Patients Attended;
    - Number of Stroke patients receiving the Care Bundle;
    - Number of Patients referred onto the TIA Pathway.

These will be conducted on a bi-annual basis and reports provided to the Clinical Review Group and Quality and Safety Committee.

6.2 There will also be an audit of performance provided by the Assistant Director of Patient Care via the Unify and Commissioning reports. The Care Quality Commission and MONITOR will review the Trust's achievements against the Fundamental Standards laid down in the KLOES. Reports will be provided for the Quality and Safety Committee meetings every two months, and an annual report produced for the Trust board.

7.0 STROKE NETWORKS AND PATHWAYS

7.1 The Trust will support a coordinated approach to Stroke care working closely with South Central Cardio-Vascular Network and local networks.

7.2 Patients will be transported to the most appropriate centre for their clinical condition.

7.3 All Patient Clinical Records where staff indicate that the patient has suffered a stroke are subject to clinical audit by the clinical Effectiveness department. A report is prepared on a monthly basis and monitor through the Trusts Integrated Performance Report (IPR). The IPR is monitored to individual team member level by Team Leaders via the Qlikview software.

7.4 The Trust will support and work with the networks and specialist units to monitor capacity and assist in balancing workload across all units.

7.5 The Trust will provide for the transfer of critically ill patients, and those in need of life-saving interventions from local emergency departments to specialist units by use of the Time Critical Transfer Policy.

7.6 The Trust will support the stroke networks in raising awareness about stroke in the medical and general community.

8. EDUCATION

8.1. Training in the recognition and management of stroke will be delivered in accordance with the Trust's Training Needs Analysis (TNA).

8.2. Emergency Operations Centre Staff will be trained to identify patients believed to be suffering from a stroke using approved decision support software, and to mobilise appropriate resources in an appropriate time frame.

8.3. Clinical Staff of all levels will be trained to recognise patients believed to be suffering from a stroke using clinically accepted tools such as FAST and $ABCD^2$.

8.4. Clinical Staff at all levels will be trained in the management of Stroke assessing ABCD and managing any deficits and checking and maintaining blood glucose levels.

8.5. Staff will be made aware of, and be advised how to access the most appropriate care pathway for their patients.

8.6. All Stroke care training is in line with the current clinical practice guidelines issued by AACE/JRCALC. Whenever there is a major change in an associated clinical guideline this will be communicated via update training for all relevant staff.

8.7. Periodically, AACE/JRCALC may review their guidance and following any updates will provide a gap analysis, highlighting any significant changes to practice. This is documented in every copy which is distributed to staff, with a lead in period stated which allows for queries or extra educational needs required.

8.8. Update training requirement for all operational staff responding to general accident and emergency calls involving stroke emergencies will be carried out as indicated in the TNA. Staff should indicate during their annual Appraisal whether they require update training in stroke care and will also be reminded of any changes to clinical practice as outlined above.

8.9. Non-attendance for stroke training, as per the TNA, will be monitored and reported via the ESR (Electronic Staff Records) to the Clinical Review Group. The relevant Heads of Operations will be contacted for subsequent action to ensure non-attendance is followed up and rectified.

8.10 Records of all training and education will be kept in the Trust's Education Centres.

Appendix 1

South Central Cardio-Vascular Network Ambulance Service Specification Chart

Stroke Service Specifications
For Ambulance Services in South Central

Version Control

Version No.	Date	Author	Reviewer / Reviewing Body	Status
0.1	28/07/2010	Alex Woodroffe	Clinical Leads / Michelle Stringer	Draft
0.2	23/08/2010		Michelle Stringer	Draft
0.3	13/09/2010		Consultation	Draft
1.0	29/09/2010		Stroke Steering Group	Approved
1.1	30/03/2011		Public Involvement Meeting	Approved
1.2	15/04/2011		Michelle Stringer	Approved

Revision History

Version No.	Revision History
0.0 → 0.1	Creation of document
0.1 → 0.2	Substantial revision of content
0.2 → 0.3	Change mechanics of referral
0.3 → 1.0	Changes following consultation
1.0 → 1.1	Changes following public consultation
1.1 → 1.2	Minor changes for consistency

SCHEDULE 2 THE SERVICES

Schedule 2 Part 1: Service Specifications

[Mandatory headings, but detail for local determination and agreement]

Service	**Stroke Service Specification for the Ambulance Services in South Central**
Commissioner Lead	
Provider Lead	
Period	

1. Purpose

1.1 Aims
To provide emergency access to specialist provision for the assessment and treatment of individuals who have suffered a stroke or a transient ischaemic attack (TIA).

1.2 Evidence Base
This service specification is based around a comprehensive evidence base, drawn from a range of sources, including the Royal College of Physicians, the British Association of Stroke Physicians, National Institute for Clinical Excellence and the Department of Health's National Stroke Strategy.

1.3 General Overview
The National Stroke Strategy, published in 2007 by the Department of Health, collated the key evidence, and outlined what was needed to be achieved to create effective stroke services in England. The strategy identified major stages in the stroke patient's pathway and established quality markers that need to be undertaken to create effective stroke services. The strategy recognised the potential benefits for all patients if effective early treatment and fast rapid access to acute stroke specialist services were provided.

Time is brain and the first 72 hours' care is vital to ensure the optimum clinical outcome. This needs to be underpinned by an effective whole system pathway for assessment, discharge and repatriation to local stroke services, subsequent rehabilitation and longer term support.

1.4 Objectives

The objectives are to:

- Provide a patient-delivery mechanism that complements the hyperacute and acute stroke service specification and TIA service specification for NHS South Central
- Ensure that services provide an excellent patient experience
- Ensure equity across the region
- Establish and implement a fair and transparent decision-making process

1.5 Expected Outcomes

Any patient presenting with acute stroke will be placed on either the Hyperacute or Acute pathway, to receive the most appropriate care for their condition. The implementation of these pathways will not only provide the best possible outcomes for the patients, but allow NHS South Central to use resources effectively within the health economy.

Any patient presenting with TIA will be $ABCD^2$ assessed and referred either to the high-risk or low-risk clinic. However, ambulance crews should send a referral for all patients as high-risk. The patients should also be given 300mg of aspirin, unless contraindicated.

The expected outcomes for the ambulance services in South Central are:

For Stroke:

- To determine eligibility for transport to a hyperacute stroke unit (HASU) or acute stroke unit (ASU) based on time elapsed since symptom onset
- To enable eligible patients to reach a HASU in time to receive thrombolysis
- The service will be sustainable for value for money
- Equity of access to the service across the region
- Equity of quality of care

For TIA:

- Reduction in the number of admissions of patients with TIA who can be assessed and treated without need for admission

2. Service Scope

2.1 Service Description

Patients with ongoing neurological symptoms should be assessed by ambulance crews using FAST. If a patient presents normally, but describes transient neurological symptoms, they should be assessed by ambulance crews using $ABCD^2$

Stroke – for patients who are FAST positive:

- A “call to depart scene” time of 39mins
- Patients who are potentially eligible for thrombolysis will be taken to a hyperacute stroke centre. All other patients will be taken to their local acute stroke centre (this may still be the hyperacute stroke centre if the patient is local to that centre)
- Potential eligibility for thrombolysis will be determined purely by time from onset of symptoms:
  - If a patient’s symptoms commenced within 3 hours at time of assessment, the patient should be taken to a HASU
  - If a patient’s symptoms commenced more than 3 hours prior to assessment, the patient should be taken to an ASU
  - If a patient was asleep at time of symptom onset, their symptoms should be deemed as having started at the time they fell asleep
- Ambulance crews will pre-alert the receiving centre
- All patients with signs and symptoms of a suspected stroke will be taken to the nearest hyperacute or acute stroke centre

TIA – following $ABCD^2$ assessment:

- TIA patients (both high- and low-risk) should send the referral immediately to local Acute Trust’s TIA service
- All patients where the referral is sent by the ambulance trusts will be seen, assessed and treated as being at high risk of stroke
- All TIA patients should be given advice on driving (leisure and occupational), employment (if employed in a potentially hazardous role, e.g. scaffolder, rigger, machine operative, etc.), FAST and lifestyle management
- 300mg of aspirin should be given to the patient, unless contraindicated
- Any patients with the following symptoms should be taken directly to hospital for admission:
  - Extreme hypertension (>200/105) or acutely uncontrolled diabetes
  - Unstable vital signs
  - CNS infection (fever)
  - Persisting neurological deficit, including crescendo TIA (2 or more TIAs in the last 7 days), dependent on the significance of the persisting deficit as determined by the clinician undertaking the examination
  - Other patients where admission is deemed appropriate by the consultant physician (these admissions may be subject to audit)

Training and Competence

- Ambulance staff should be FAST trained and $ABCD^2$ trained.

2.2 Accessibility/acceptability

- Clinical outcomes: The health needs of the population of the South Central are met.
- Strategic fit: Service provision must meet national, regional and local guidance
- Equity of care: consistency of stroke service delivery, variability will be minimised
- Sustainable services across the whole care pathway: including training and availability of appropriate staff.

2.3 Whole System Relationships

This document should be taken in conjunction with the following specifications to cover the whole stroke pathway:

- Stroke Service Specification
- Transient Ischaemic Attack Specification

2.4 Interdependencies

- All South Central Acute Trusts
- Primary Care organisations
- Out-of-Area providers

2.5 Relevant networks and screening programmes

This is a multi-organisation service, with ambulance staff working with Acute Trust staff, Primary and Community Care staff and out-of-hours services.

It is for Health Economies to define these relationships locally

3. Service Delivery

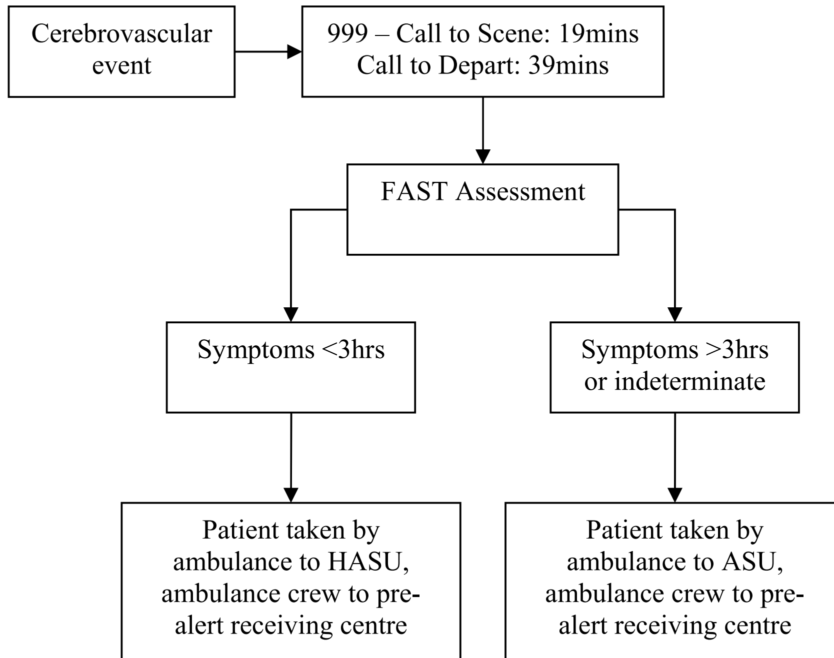
3.1 Service model

Patients who are identified by rapidly-attending ambulance crews as potentially having a stroke (via the FAST assessment) are taken directly to either a Hyperacute Stroke Unit or an Acute Stroke Unit (depending on time since onset of symptoms).

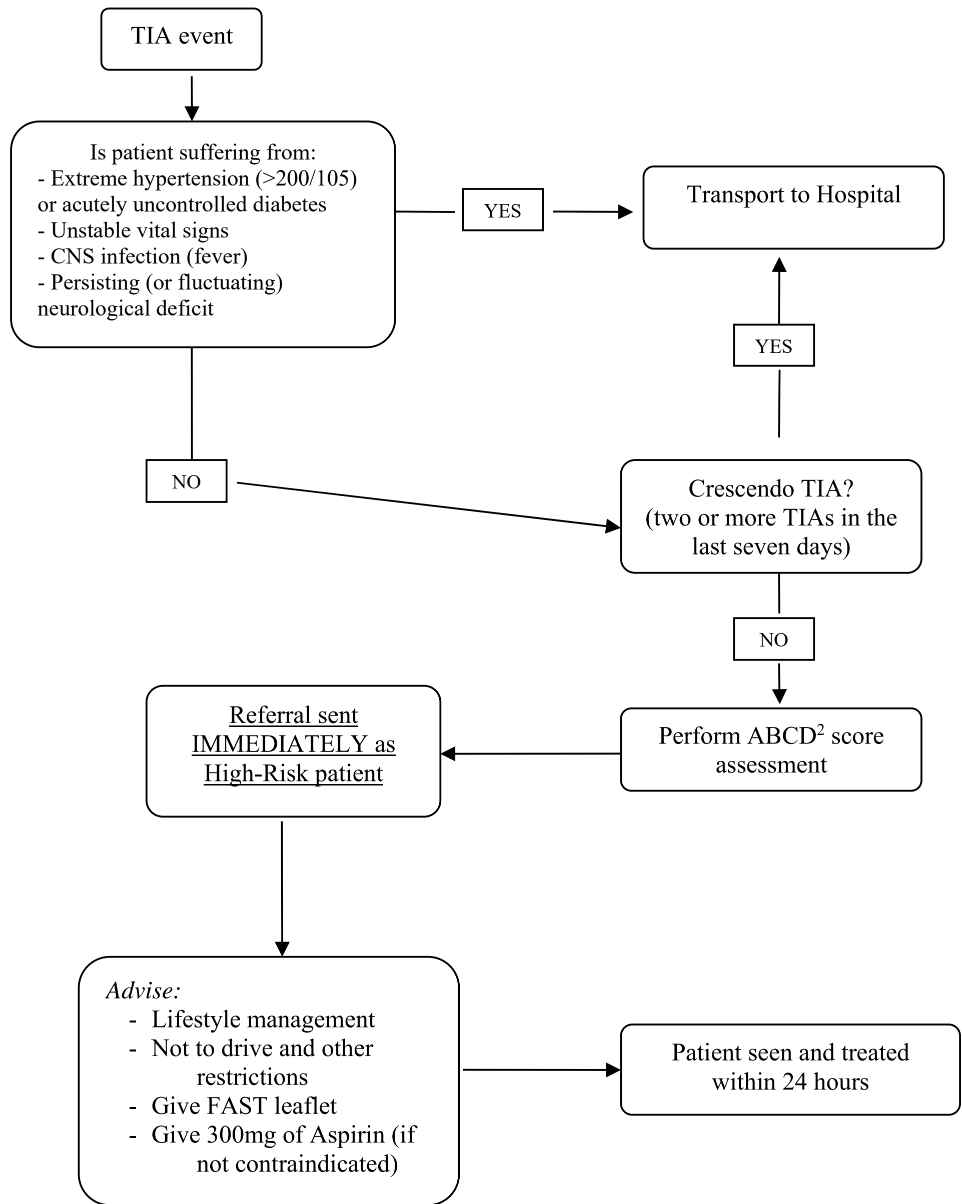
Patients who are identified by ambulance crews as potentially having suffered a TIA (via the $ABCD^2$ assessment) are not taken to hospital (unless clinically indicated otherwise) and are instead a referral is sent to their local Acute Trust.

3.2 Care Pathways

Stroke:



Transient Ischaemic Attack:



4. Referral, Access and Acceptance Criteria

4.1 Geographic coverage/boundaries

This service will be delivered to all patients across Berkshire, Buckinghamshire, Milton Keynes, Oxfordshire, Hampshire, Portsmouth and Southampton by South Central Ambulance Service. The service will be delivered to all patients across the Isle of Wight by the Isle of Wight Ambulance Service.

4.2 Location(s) of Service Delivery

As above

4.3 Days/Hours of operation

The Ambulance Services will respond on a 24 hours a day, 7 days a week basis without exception.

4.4 Referral criteria & sources

- FAST positive response - All patients with signs and symptoms of an acute stroke will be assessed by ambulance crews using FAST. All stroke patients who are being assessed by the ambulance crews whose onset of symptoms is less than three hours from the time of assessment are to be directly taken to Hyperacute Stroke Centre. All other patients to be taken directly to the nearest Acute Stroke Centre.

- $ABCD^2$ response – all patients with signs and symptoms of a TIA will be assessed by ambulance crews using $ABCD^2$. All patients to be referred as per Section 3.2

4.5 Referral route

As per Section 3.2

4.6 Exclusion criteria

Any patient not suspected of suffering a stroke or a TIA. These patients will still need to be assessed and treated, but according to the pathway appropriate to their condition.

4.7 Response time & detail and prioritisation

- The "call to depart scene" time for acute stroke patients should be as fast as possible, with a maximum limit of 39 minutes. Patients with acute stroke whose onset of symptoms is less than three hours from the time of assessment are to be directly taken to Hyperacute Stroke Centre; all other acute stroke patients to be taken directly to the nearest Acute Stroke Centre
- Once a TIA patient has been assessed, an immediate referral should be sent to their local Acute Trust. It is up to the Trust to ensure that patients are seen and treated within the time limits established in the TIA service specification.

5. Transfer of and Discharge from Care Obligations

Paramedic service to link with receiving stroke unit - Alert the Stroke Unit/Emergency Department (ED) to potential admission.

6. Self-Care and Patient and Carer Information

Advice should be given to patients on lifestyle management, not driving until approved by a clinician and FAST awareness. 300mg of aspirin should be given to patients if not contraindicated.

7. Quality Requirements

Performance Indicator	*Indicator*	*Threshold*	*Method of Measurement*	*Consequence of breach*
Quality				
Call to Depart Scene time within 39 minutes		90% of all patients		
Patients with ongoing neurological symptoms are FAST-assessed by ambulance crew		95% of all patients		
Patients assessed less than 3 hours from symptom onset are taken to HASU		95% of all patients		
Ambulance Crews will pre-alert the receiving centre (for stroke patients)		95% of all patients		
Patients describing resolved neurological symptoms are $ABCD^2$ score assessed by ambulance crew		95% of all patients		
TIA patients to be referred immediately		95% of all patients		
Ambulance crews to be trained in FAST and $ABCD^2$		95% of attending paramedic staff		
Performance & Productivity				

8. Activity

8.1

Activity Performance Indicators	*Threshold*	*Method of measurement*	*Consequence of breach*	

8.2 Activity Plan

8.3 Capacity Review

9. Prices & Costs

9.1 Price

Basis of Contract	Unit of Measurement	Price	Thresholds	Expected Annual Contract Value
National Tariff plus Market Forces Factor				
Non-Tariff Price (cost per case/cost and volume/block/other)*				
Total		**£**		**£**

**delete as appropriate*

9.2 Cost of Service by commissioner

Total Cost of Service	Co-ordinating PCT Total	Associate PCT Total	Associate PCT Total	Associate PCT Total	Total Annual Expected Cost
£	**£**	**£**	**£**	**£**	**£**