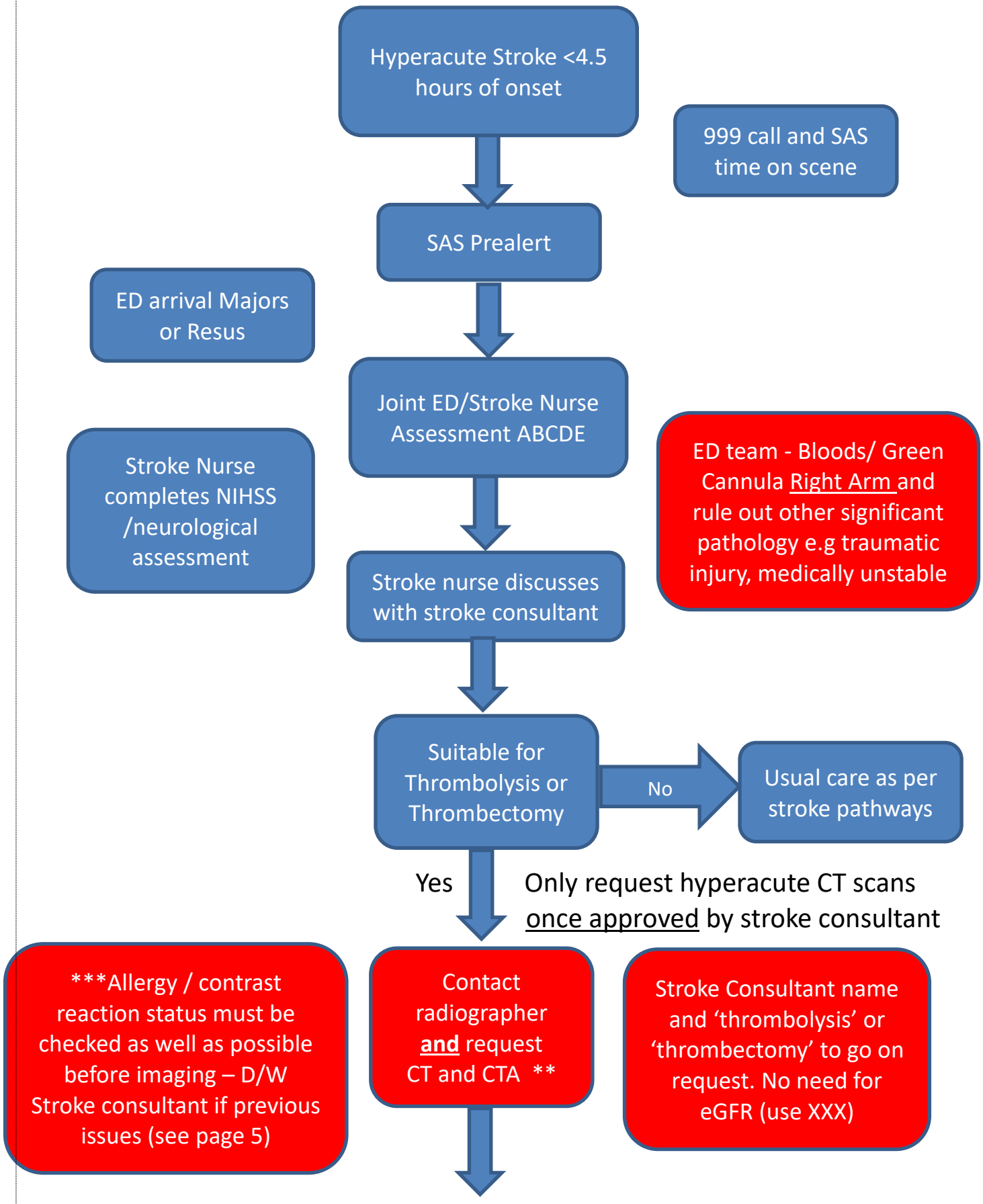
TITLE- HYPERACUTE STROKE – THROMBOLYSIS AND THROMBECTOMY PATHWAY

TARGET AUDIENCE	Stroke Nurses, ED Medics / ANPs, Radiography/Radiology Clinicians and Stroke Physicians
PATIENT GROUP	Hyperacute Ischaemic Stroke

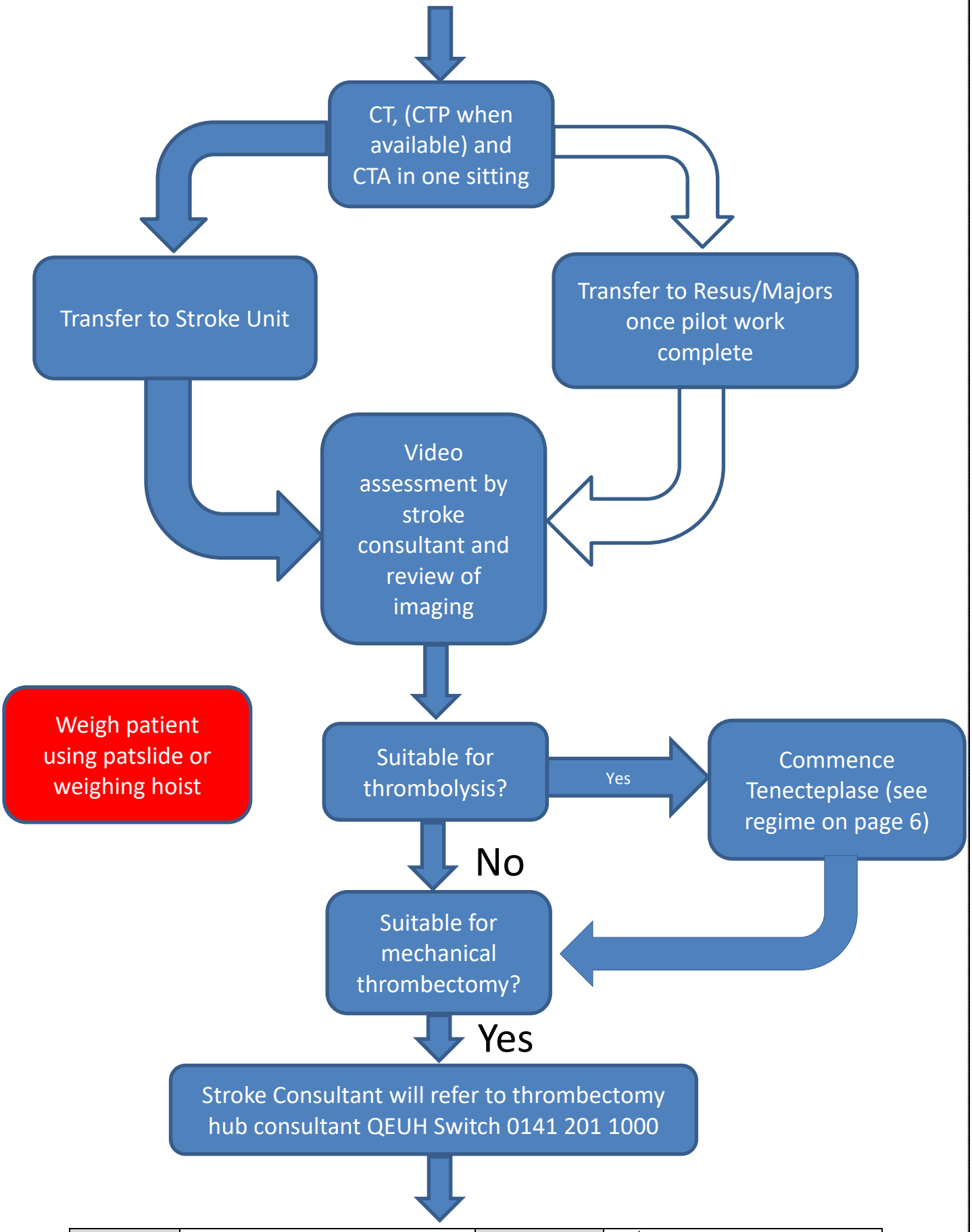
Clinical Guidelines Summary

- In line with the rest of the UK and Scotland, NHS Lanarkshire is moving to using Tenecteplase instead of Alteplase for Hyperacute Stroke presenting within 4.5 hours of symptom onset.
- This document describes the current thrombolysis / thrombectomy pathway, imaging acquisition and thrombolysis
- It includes a chart of Tenecteplase doses by weight and also instructions on how to administer the drug.

Hyperacute Stroke – Thrombolysis and Thrombectomy Pathway



Hyperacute Stroke – Thrombolysis and Thrombectomy Pathway



Lead Author	**Prof Mark Barber**	**Date approved**	**22nd January 2025**
Version	**1.6**	**Review Date**	**31st August 2025**

Hyperacute Stroke – Thrombolysis and Thrombectomy Pathway

Accepted by hub?

No

NHSL Governance Review

Yes

Stroke Nurse runs through transfer safety checklist

Critical Care Review Needed?

Yes

Critical Care Review

No

Stroke nurse contacts National Emergency Line SAS - 0333 399 0111 then Option 1

If Transfer Checklist negative or with critical agreement, patient transferred without escort. If escort needed, provided by critical care team

Nurse completes WoS transfer documentation – sent with patient

Contact Flow Team – the patient will be repatriated in 48 hours

** Imaging Requesting:

- **Request CT Brain AND**
- **Request CT Angio Aortic Arch and Carotid both**

The request must include the on call stroke consultant's name and that the patient is for potential thrombolysis or thrombectomy

- **Check allergy status as thoroughly as possible with ECS and patient/family if possible. D/W stroke consultant before performing imaging if previous issues.**

eGFR is not required for thrombolysis/thrombectomy imaging. Enter 'XXX' in the box. If known renal issues D/W stroke consultant before requesting

*** Previous allergy contrast reactions:

- **Previous contrast reactions may be identified by the patient, listed as an allergy in ECS or recorded on the NHSL radiology system**
- **If there is a history of previous contrast reaction, do not request or perform CTP or CTA until discussed with Stroke Consultant**
- **In some circumstances, Non-contrast CT may be enough (e.g. if patient not suitable for thrombectomy)**
- **In patients with a previous mild contrast reaction, the risks of further reaction may be outweighed by the potential benefits of thrombectomy. This would only go ahead though after a discussion with the patient and/or NOK about the pros and cons.**
- **In a patient with a confirmed history of contrast allergy, the CTA/CTP would only then be requested by the stroke consultant remotely on TRAKCARE.**
- **Thrombectomy itself requires large volumes of contrast, so it unlikely that a patient who has had a previous severe contrast reaction would be suitable for thrombectomy**

Tenecteplase [1][2] administration:

Tenecteplase for treating ischaemic stroke comes in a 25 mg (5000U) vial. Tenecteplase is administered as a single IV bolus over 5 to 10 seconds. The dose is weight dependent and the maximum is 25mg.

Calculate the dose based on the patient's body weight.

Benefit-risk of Tenecteplase treatment should be carefully evaluated in patients weighing 50 kg or less due to limited availability of data. The weight-band table is derived from the AcT trial [3] and there was no evidence of any safety issues identified when following that dosing schedule. For myocardial infarction the lowest weight band is also <60kg and there have been no safety issues identified for using this lowest dose for all patients, no matter how far less than 60kg. If there is an individual safety concern in a patient <60kg, then a calculation could be made on the 0.25mg/kg basis, but this introduces risk around both the calculation and the accuracy of syringe measurement at such low volumes.

Patients' body weight category (kg)	Tenecteplase (mg))	Corresponding volume of reconstituted solution (ml)
< 60	**15.0**	**3.0**
≥ 60 to < 70	**17.5**	**3.5**
≥ 70 to < 80	**20.0**	**4.0**
≥ 80 to < 90	**22.5**	**4.5**
≥ 90	**25.0**	**5.0**

Details on how to prepare the drug can be found at https://go.boehringer.com/RTz and a training video is available at - https://go.boehringer.com/R95yZ .

If not opening directly on a NHSL device, then copy and paste into Chrome browser. This guideline will be formally reviewed at a minimum annually to ensure links are still functioning correctly.

A list of contraindications to thrombolysis is listed in a document at - http://firstport2/staff-support/stroke/Documents/Stroke%20Thrombolysis/Stroke%20Thrombolysis%20%20Nurse%20Document.doc .

References/Evidence

1. National Clinical Guideline for Stroke for the UK and Ireland - Acute care - National Clinical Guideline for Stroke
2. **NICE - Tenecteplase for treating acute ischaemic stroke** Technology appraisal guidance Reference number TA990 Published: 24 July 2024
3. Menon K et al. Intravenous tenecteplase compared with alteplase for acute ischaemic stroke in Canada (AcT): a pragmatic, multicentre, open-label, registry-linked, randomised, controlled, non-inferiority trial. Lancet 2022 Jul 16;400(10347):161-169

Appendices

1. **Governance information for Guidance document**

Lead Author(s):	Mark Barber
Endorsing Body:	Stroke MCN
Version Number:	1.6
Approval date	January 2025
Review Date:	August 2025
Responsible Person (if different from lead author)	

CONSULTATION AND DISTRIBUTION RECORD	
Contributing Author / Authors	

Consultation Process / Stakeholders:	All stroke physicians. ED Stroke Leads. All stroke Senior Charge Nurses. Critical care – governance group. Regarding the radiology aspects of the pathway, these have been agreed in the Thrombectomy SLWG chaired by Claire Robertson and including a number of radiologists and radiographers from all three NHSL acute sites
Distribution	

CHANGE RECORD

Date	Lead Author	Change	Version No.
1.11.24	Barber	Initial submission 1.11.24	1
27.11.24	Barber	1. ADTC requests - shrink pathway to one page, fix one spelling error, replace brand names, clarify strength of tenecteplase and add to text above table, rephrase 'if critical care happy' 2. Added advice from local (and world) expert on treating those less than 50kg	2
31.12.23	Barber	1. Reversal of initial ADTC request to shrink flowchart to one page (became too small) 2. Reference personal communication from Prof Muir on treating patients less than 50kg 3. Shortened review date to maximum 12 months so links to training pages are kept up to date.	3
22.1.25	Barber	1. Spelling correction in flowchart 2. Add appendix with correspondence from Prof Keith Muir.	4
15.2.25	Barber	Improvements to the advice on low weight patients	5
20.2.25	Barber	Formatted References	6

2.You can include additional appendices with complimentary information that doesn't fit into the main text of your guideline, but is crucial and supports its understanding.