# Mercy University Hospital Stroke Thrombolysis Proforma

- Fill proforma for all suspected stroke patients considered for intravenous thrombolysis with alteplase (rt-PA).
- File in the medical notes.

Name of person completing form:	•
Designation:	•
Signature	

Thrombolysis Timings	Time	
Time of stroke onset		
Time arrival at hospital		
Time Stroke team called		
Time stroke team assessment		
Time of CT scan		
Time of start of infusion		
If no thrombolysis - reason		

## **Checklist**

Capillary Blood Glucose Checked	
CT scanner aware (porter and lifepack for transfer)	
Green cannula both arms	
<b>Bloods</b> sent (FBC/clotting/u+e's/glucose) + <b>Urgent</b> request to labs	
Stroke consultant aware	
Bed manager aware	
Withhold aspirin	
BP and Cardiac Monitor (BP check every 15 mins)	
ECG	
Check NIHSS score	
Patient consent	
Estimate patients' weight	
Check inclusion/ exclusion criteria	

# **Patient Details**

# **Route of referral**

NAME	] [	P	aramedics
DOB	]	G	P
AGE	] [	S	elf-referral
HOSPITAL NO.	]	O	thers

Date/Time of assessment:

Date/Time of symptom onset:

BP / GCS: /15

NIHS Score: Pre morbid Rankin Score

Cap Blood Glucose: Weight (Estimate if necessary):

If  $BM < 3.5 \,$  mmol/l treat urgently and reassess once glucose normal

#### ANSWER TO THE FOLLOWING QUESTIONS MUST BE YES.

		YES	NO
1.	Clinical Diagnosis of Stroke		
2.	CT appearance consistent with schaemic stroke		
3.	Onset of symptoms less than 3 hours ago. Benefit has been shown up to 4.5 hours but this is not currently licensed but should be considered		
4.	Risks and benefits explained to patient or relative.		

## ANSWER TO <u>ALL</u> OF THE FOLLOWING QUESTIONS MUST BE <u>NO.</u>

		YES	NO
1.	Severe stroke as assessed clinically (e.g. National Institute of Health Stroke Score >25) (NIHSS)		
2.	Minor neurological deficit (NIHSS < 4)		
3.	Symptoms rapidly improving before start of infusion		
4.	Unconscious patient		
5.	Fixed head or eye deviation.		
6.	Pre- stroke Rankin > 3. Life expectancy less than one year from another cause		
7.	Seizure at onset of stroke		
8.	Symptoms suggestive of subarachnoid haemorrhage, even if the CT scan is normal.		
9.	Infective endocarditis or acute pericarditis		
10.	Recent ( < 10 days) traumatic external heart massage		
11.	Recent ( < 10 days) puncture of a non-compressible blood vessel (e.g. subclavian or jugular vein puncture, arterial puncture, or lumbar puncture within 7 days). 24 hrs may suffice if min trauma from arterial puncture		
12.	Trauma with internal injuries, surgery or visceral biopsy within previous 4 weeks.		
13.	Serious head trauma or C.N.S surgery within the previous 3 months.		
14.	Any history of central nervous system damage (i.e. neoplasm, aneurysm, intracranial or spinal surgery)		
15.	Pregnancy, or childbirth within the previous 4 weeks.		
16.	Colitis, oesophageal varices, active peptic ulcer disease		
17.	Abdominal aortic aneurysm		
18.	Proliferative diabetic retinopathy		
19.	Acute pancreatitis		
20.	Severe liver disease, incl. hepatic failure, cirrhosis, portal hypertension, oesophageal varices and active hepatitis		
21.	Blood Glucose <3 mmols/l or >22 mmols/l		
22.	Hereditary or acquired bleeding disorder		

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		YES	NO
23.	Uncontrolled hypertension (systolic > 180mmHg or diastolic > 105mmHg)		
24.	Recent severe or dangerous bleeding		
25.	Known history of or suspected intracranial haemorrhage		
26.	Platelet count <100		
27.	Haematocrit <25%		
28.	Current anticoagulant therapy (excepting INR<1.4 whilst on warfarin)		
29.	Administration of heparin within the previous 48 hours and or an elevated thromboplastin time		
30.	Previous Stroke AND Diabetes		
31.	Previous stroke within 3 months (in EMEA licence but is a relative contraindication)		
32.	Age > 80 yrs is out with EMEA provisional licence and a relative contraindication)		
33.	Peritoneal dialysis or haemodialysis		
34.	Caution if history of migraine and typical headache at symptom onset (note patients with migraine develop stroke)		
35.	Neoplasm with increased bleeding risk		

#### **C.T CAUTION CRITERIA**

ATTENDING STROKE DOCTOR AND CONSULTANT RADIOLOGIST SHOULD CHECK THE FOLLOWING C.T CAUTIONS.

		YES	NO
1.	High density lesion consistent with intracranial haemorrhage		
2.	Hypodensity in >1/3 M.C.A. territory or equivalent (difficulty with reproducibility and reliability – patients with		
	seemingly hypodense areas were included in the NINDS trial within 3 hours)		
3.	Extensive CT changes of evolving infarction or mass effect on CT		

#### Information to give to patients / relatives before administration of Alteplase

If the criteria above are met then Alteplase is a licensed treatment for acute ischaemic stroke and so written consent is not required. If possible there should be agreement from the patient and / or relative.

When the patient cannot agree because of their impairments and no relative is available, then treatment can still be given if it is judged to be in the best interests of the patient. Any explanation should include:

- There has been a significant stroke cause by a blocked artery preventing blood from getting to a part of the brain and causing permanent damage. With or without treatment there may be some recovery or things could get worse.
- Only one treatment has been shown to prevent damage to the brain. This treatment, alteplase, dissolves the blood clot blocking the artery and allows blood to get back to the brain. It can work up to 4.5 hours after a stroke starting
- There is a risk that the treatment will cause bleeding in the brain, causing a worsening stroke. This occurs in 7 out of 100 patients treated and is fatal in 3 of these.
- Despite this, overall the treatment is much more likely to help than to cause harm.
- Without treatment of 100 people with a stroke, 26 will survive with minimal or no disability with treatment of 100 people with a stroke, 40 will survive with minimal disability
- Alteplase increases the chance of bleeding in the brain in the short term but increases the chance of recovery from the stroke in the long term

#### **Consent**

Consent obtained for possible treatment with thrombolysis? Yes No

If consent unavailable, is thrombolysis judged to be in the patient's best interest?

'es No

# Alteplase (RT-PA) Administration Final check list

T-PA given within 3 hours of stroke*	rtPA (Alteplase) dose: 0.9mg/kg (maximum dose
Inclusion /exclusion criteria	90mg). See dosing sheet
Systolic BP< 185	Give 10% as bolus over 2
Diastolic BP<110	minutes followed by 90%
Consent/best interest of patient unable to consent	infusion over 60 minutes
Consultant agreement for thrombolysis (Name)	Time Given:

<sup>\*</sup> It is recommended that treatment is considered between 3-4.5 hours otherwise meet the criteria

#### **Post STROKE Thrombolysis Care**

#### General management

- Bed rest for 24 hours.
- Pulse oximetry maintain O2 saturations above 95%.
- Maintain normal temperature. Paracetamol if temp > 37.5°C.
- Blood Glucose: Maintain blood glucose < 10 mmol/l using IV insulin if necessary.
- No arterial punctures, NG tubes or central lines for 24 hours.
- No urinary catheters for at least 1 hour after infusion ended.
- Falls Risk Assessment & Prevention measures.
- Avoid suctioning whenever possible, caution giving mouthcare.
- No aspirin, clopidogrel, dipyridamole or anticoagulant (heparin or warfarin) for 24 hours.
- Repeat CT head at 24-36 hours.
- Hydration / Nutrition
- No rehabilitation assessments for 24 hours

#### STOP the rt-PA infusion IF:

- Anaphylaxis
- BP systolic <100
- BP systolic rises to >180/105 mmHg sustained after 5 minutes, or associated with neurological deterioration of any sort
- Major systemic bleeding
- Neurological deterioration of 2 points on GCS eye/motor scale