University Hospital Galway

EMERGENCY DEPARTMENT

GalwayEM.ie

Stroke (https://galwayem.ie/guidelines/medical-emergencies/stroke)

Category
Medical Emergencies (https://galwayem.ie/guidelines/medical-emergencies)

An acute stroke service has been set up at GUH. Patients who fulfil the criteria for thrombolysis will be thrombolysed in the ED if this can be done within 4.5 hours of symptom onset. The decision to thrombolyse will be made by the medical registrar with the support of the on-call Stroke Consultant. Remember ***time is brain*** and it is therefore important that ED staff identify suitable patients as soon as they arrive and recruit them into the treatment protocol.

- * (#_ftn1) ***-Inclusion criteria***
- Clinical diagnosis of ischemic stroke causing measurable neurologic deficit

(NIHSS >4)

- Onset of symptoms <3.5 hours (to allow treatment within 4.5 hrs)
- If the exact time of stroke onset is not known, it is defined as the last time the patient was known to be normal.
- CT scan consistent with acute ischaemic stroke
- Valid consent

Exclusion criteria

Any contraindication to thrombolysis with rt -PA (refer to drug information sheet)

Historical

- Stroke or head trauma in the previous 3 months
- Any history of intracranial haemorrhage, surgery or neoplasm
- Major surgery or trauma in the previous 3 months
- Gastrointestinal or urinary tract bleeding in the previous 21 days
- Myocardial infarction in the previous 3 months
- Arterial puncture at a non-compressible site in the previous 7 days
- On anti-coagulants unless INR < 1.4 if on warfarin

Clinical

- Spontaneously clearing stroke symptoms

- Only minor and isolated neurologic signs NIHSS <5
- Severe stroke NIHSS >24
- Seizure at the onset of stroke
- Unconscious or fixed eye deviation
- Symptoms suggestive of subarachnoid haemorrhage
- Persistent blood pressure elevation (systolic ≥185 mmHg, diastolic ≥110 mmHg)
- Active bleeding or acute trauma (fracture) on examination

Laboratory

- Platelets <100,000/mm3
- Serum glucose <3 or > 22 mmol/L
- International normalized ratio (INR) ≥1.4 if on warfarin

CT

- Evidence of haemorrhage

Precautions

- > 79 yrs
- Previously dependent. Rankin score ≥ 3
- Greater than 1/3 MCA territory on CT
- Hx of stroke and diabetes

Once a patient has been identified as a potential candidate for thrombolysis they should enter the Stoke thromblysis pathway (briefly summarised below).

Within 10 minutes of arrival

- Confirm clinical diagnosis and time of onset
- Take blood for urgent FBC, U&E, Glucose, Clotting & Group + Hold.
- Inform ED registrar or Consultant
- Contact radiology registrar to request CT scan
- Inform medical registrar or Stroke Consultant of potential patient for thrombolysis

Within 30 minutes of arrival

- Confirm definite onset time. A word of caution with right sided strokes (i.e. Left hemiparesis etc) they can be unreliable with time of onset and do not appreciate early signs of stroke. Get collateral if possible.
- If collateral is not immediately available from the patient or relative contact the person who contacted GP or ambulance service. IF NECESSARY SPEAK TO THE GP OR AMBULANCE CREW.
- Confirm that (Verbal) consent can be obtained.
- Record NIHSS, Pre-stroke Rankin and Barthel. (Recorded in STROKE CARE PATHWAY
- Insert 18G IV cannula into both arms.

Prior to starting thrombolysis

- Obtain a clear direct report from the radiology registrar that there are no CT exclusion criteria
- Chase blood results
- Confirm that the patient meets all the inclusion and none of the exclusion criteria. (AVAILABLE IN PATHWAY)

- Calculate dose of rt-PA from either actual or estimated body weight

rt-PA administration

1. Total dose: 0.9mg/kg. Maximum dose is 90 MG (see body weight/dose chart)
2. Should be prescribed by and administration supervised by a doctor from the stroke team.
3. 10% of total dose given as an IV push over 2 minutes supervised by a doctor from the stroke team.
4. Give remaining 90% of dose IV over 60 minutes via infusion pump.
5. Observe patient for any deterioration during infusion.

- . AHA Guidelines on the Early Management of Adults with Ischaemic Stroke May 2007 (http://stroke.ahajournals.org/cgi/content/full/38/5/1655)
