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| Patient ID Label |

**TENECTEPLASE THROMBOLYSIS CARE PATHWAY**

**for ST Elevation Myocardial Infarction (STEMI) /**

**Or new Left Bundle Branch Block with acute MI symptoms**

For use during Covid-19, if patient is deemed unsuitable for Primary PCI

Criteria for thrombolysis:

* Clinical presentation and diagnosis of ST Elevation Myocardial Infarction / new Left Bundle Branch Block within 6 hours of symptoms.

Plus ECG changes of:

* ST elevation of > 1mm in 2 or more contiguous limb leads, or
* ST elevation of > 2mm in 2 or more consecutive precordial leads, or
* Presumed new Left Bundle Branch Block
* NO contraindications present
* Cardiologist to decide if thrombolysis is the treatment of choice

Dose of Tenecteplase is weight-adjusted to a maximum dose of 10,000 units (50 mgs)

Administration - single Intra-Venous Bolus over 10 seconds

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| **Patient Weight** | **Dose of Tenecteplase** | **Volume of solution** |
| <60 kgs | 30 mgs (6,000 units) | 6 mls |
| 60 – 69 kgs | 35 mgs (7,000 units) | 7 mls |
| 70 – 79 kgs | 40 mgs (8,000 units) | 8 mls |
| 80 – 89 kgs | 45 mgs (9,000 units) | 9 mls |
| 90 kgs + | 50 mgs (10,000 units) | 10 mls |

**\*\*** In patients over 75 years of age, reduce dose by 50% to reduce risk of intra-cranial bleeding\*\*

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Ward:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_

Tenecteplase Contraindications: YES / NO

- History of anaphylactic reaction to any of the constituents,

Or Gentamicin

- Significant bleeding disorder or tendency to bleed

- Stroke

- Very high, uncontrolled BP

- A head injury

- Severe liver disease

- Peptic ulcer

- Oesophageal varices

- Abnormality of blood vessels, i.e.: Aneurysm

- Brain tumour or Intra-cranial mass

- Pericarditis, Endocarditis

- Dementia

- Current Anticoagulation / NOAC therapy, i.e.; Warfarin

- Pancreatitis

- Recent major surgery, including surgery to brain or spine

- If the patient has received chest compressions for more than

2 minutes in the last 2 weeks

- Pregnancy

If any of the contraindications are present, delay thrombolysis but consider the following options with a sense of urgency:-

- If BP very high or uncontrolled, commence IV Glyceryl Trinitrate infusion 50 mgs in 50 mls (Nitronal / Nitrocine) at 2 mgs/hr, titrating up to 10 mgs/hr as required to lower BP, then commence thrombolysis.

- CT Scan prior to administering thrombolysis if any doubt re Aortic Aneurysm or Dissection.

The Dr will have already obtained the patient’s medical history of presenting cardiac-sounding chest pain and/or symptoms, and any contraindications to thrombolysis.

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Ward:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_

Thrombolysis Checklist / Immediate Priorities – First 15 minutes

* Patient name band
* Attach continuous Cardiac Monitoring to patient
* Record vital signs: BP in both arms, Heart Rate and Rhythm, SaO2, Respiratory Rate, Temperature, NEWS 2 score and Blood Sugar
* Obtain 12-lead ECG
* Insert peripheral IV cannula, and take blood samples for Full Blood Count, Urea & Electrolytes, Troponin, Clotting screen, random Glucose, random Cholesterol, C-Reactive Protein, and Liver Function Test.
* Verbal Consent by Cardiologist
* Confirm if any Allergies, and document on the Drug Chart
* Oxygen will not be required by every patient, Please give Oxygen if Hypoxic or in Heart Failure
* Metoclopramide 10 mgs IV (if no anti-emetic already given)
* Morphine 5 – 10 mgs OR Diamorphine 2.5 – 5 mgs IV, titrated to pain
* ASPIRIN 300 mgs oral, stat dose (if not already given)
* CLOPIDOGREL 300 mgs OR 600 mgs oral, stat, as per Cardiologist decision
* HEPARIN (Unfractionated) 5,000 unit bolus IV, followed by
* TENECTEPLASE IV bolus, as per patient weight / age, followed by
* HEPARIN (Unfractionated) IV infusion, to commence at 1,000 units / hour – as per Trust’s IV Heparin Prescription Chart, and APTT to be checked 4 hours after commencing Heparin, then adjusting dose of Heparin if required as per APTT.

IV Heparin infusion is usually continued for 48 hours, however please confirm duration with Cardiologist

* May require Continuous Variable Rate IV Insulin Infusion if BM> 11.1mm/l

Checklist completed by: Date:

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature \_\_\_\_\_\_\_\_\_\_\_\_Designation\_\_\_\_\_\_\_\_\_\_\_

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Ward: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_

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|  | Date | Time |
| Onset of Pain |  |  |
| Call for Help |  |  |
| Arrival of First Responder |  |  |
| Arrival of Ambulance |  |  |
| Arrival at Hospital |  |  |
| Time of Tenecteplase |  |  |

Chest X-Ray can be performed post-Tenecteplase, as per Dr’s instructions, unless clinically indicated prior to thrombolysis.

Echocardiogram should be performed post-Tenecteplase to assess Left Ventricular function.

Repeat ECG’s should be recorded at 60 minutes and 90 minutes after thrombolysis, and also if the patient has chest pain.

If ST segments do not show evidence of resolution at 90 minutes, and the patient has on-going symptoms, the patient should be discussed with the on-call Cardiologist as a matter of urgency.

**\*\*\* Thrombolysis should not be repeated \*\*\***

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Nursing Care

The patient should have continual cardiac monitoring to monitor closely for arrhythmias for a minimum of 48 hours, and defib/pacing pads in-situ for the first 24 hours.

Therefore, **1:1 Nursing** is required for the first 24hours (at least)

Reperfusion arrhythmias such as Idio-Ventricular Rhythm are common in patients post-thrombolysis.

Initial Vital Signs should be monitored and recorded every 15 minutes for the first 2 hours, then ½ hourly for 2 hours, hourly for 4 hours, then 4 hourly if stable. **Observations will be recorded on POET by ED and CCU staff;** However, if the patient is thrombolysed in the Cardiac Suite, the observations will be recorded on the observations charts at the back of this pathway.

Bed-rest initially for 24 hours, but longer if unstable.

During, and for 48 hours after Tenecteplase, unnecessary invasive procedures should be avoided, as should IM injections, and wet-shaving, due to the increased risk of bleeding. Vigorous brushing of teeth can also result in bleeding from the gums, so is best avoided. Pressure dressings should be applied to puncture sites to reduce risk of haematoma formation.

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Ward:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Observations before, during and after Tenecteplase **(in the Cardiac Suite only)**

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Ward: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Observations after Tenecteplase **(in the Cardiac Suite only)**

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