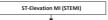
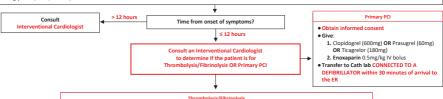
12. STEMI Algorithm

This clinical pathway is intended to supplement, rather than substitute for, professional judgment and may be changed depending upon a patient's individual needs. Failure to comply with this pathway does not represent a breach of the standard of care.



- Attach the patient to a DEFIBRILATOR
- Establish IV access in left forearm or antecubital vein and send blood samples for UEC, & hsTroponin T
- . Aspirin 300mg to chew (if not given by EMS, not allergic, no active upper GI bleeding or retinal bleeding, not a haemophiliac)
- Nitroglycerin sublingual spray 0.4mg SL for pain relief every 5mins up to relief of discomfort or MAX 3 doses reached. DO NOT give nitroglycerin if:
 - SBP < 90mmHg (or 30 mm Hg below the patient's known baseline
 - Heart rate > 100 bpm, or < 50 bpm.
 - = Right ventricular infarction (right ventricular infarction causes a preload dependent state)
- Use of sildenafil or vardenafil within the previous 24 hours or tadalafil within the previous 48 hours.
- Fentanyl 50µg IV if pain is NOT relieved by the 3 doses of SL nitroglycerin. Repeat once if still in pain after 5 mins. For persistent pain, consult a Cardiologist/Physician. Consider IVI Nitroglycerin (see C/I above)



- 1. Clopidogrel 300mg (75 mg if age > 75 years)
- 2. Enoxaparin:
- If age <75 y: 30-mg IV bolus, followed in 15 min by 1 mg/kg SC (max.100 mg for the first 2 doses)
 If age ≥ 75 y: no bolus, 0.75 mg/kg SC (max. 75 mg for the first 2 doses)
- . Regardless of age, if CrCl < 30 mL/min: 1 mg/kg SC

Absolute Contraindications	Review/Complete Fibrinolysis Checklist		nolysis Checklist	Relative Contraindications			
Any prior intracranial haemorrhage		_	Severe hypertension on	presentation (SBP > 180 mmHg or DBP > 110 mmHg) - Lower			
Known structural cerebral vascular lesson (e.g., AVM)		BP first before fibrinolysis					
 Known malignant intracranial neoplasm (primary or metasta 	emic stroke within 6 months EXCEPT acute Ischaemic stroke within 4.5 hours ected aortic dissection e bleeding or bleeding diathesis (excluding menses) ficant closed-head trauma or facial trauma within 1 month cranial or intraspinal surgery within 1 month re uncontrolled hypertension (unresponsive to emergency therapy)		□ History of TIA in the preceding 6 months □ Traumattic or prolonged (>10 minutes) CPR □ Major surgery (< 3 weeks) □ Recent (within 2 to 4 weeks) internal bleeding □ Pregnancy or within 1-week post-partum □ Active peptic ulcer □ Oral anticoagulant therapy				
 Ischaemic stroke within 6 months EXCEPT acute ischaemic st 							
Suspected aortic dissection							
 Active bleeding or bleeding diathesis (excluding menses) 							
□ Intracranial or intraspinal surgery within 1 month							
 For streptokinase, prior treatment with streptokinase within 	the previous 6 months						
 Non-compressible vascular punctures in the past 24 hrs 							

No contraindications for Thrombolysis/Fibrinolysis

- . Obtain informed consent for fibrinolysis/thrombolysis
- Ensure patient is connected to a defibrillator (ECG, SPO₂, BP) and repeat baseline vitals. Administer fibrinolysis/thrombolysis within 10 mins of STEMI diagnosis

Fibrinolytic Agent	Dose	Fibrin Specificity*	Antigenic	Patency Rate (90-min TIMI 2 or 3 flow)
Fibrin-specific:				
Tenecteplase (TNK-tPA)	To reconstitute, mix the 50-mg vial in 10 mL sterile water (5 mg/mL). Give IV bolus based on weight as			
*Half dose in patients ≥75 yrs)	below: < 60 kg - 30 mg (6 mL) 60 to 69 kg - 35 mg (7 mL) 70 to 79 kg - 40 mg (8 mL) 80 to 89 kg - 45 mg (9 mL) ≥ 90 kg - 50 mg (10 mL)	++++	No	85%
Reteplase (rPA)	10 U+10-U IV boluses given 30 min apart	++	No	84%
Alteplase (tPA)	Bolus 15 mg IV, then give infusion of 0.75 mg/kg for 30 min (maximum 50 mg), then 0.5 mg/kg (maximum 35 mg) over the next 60 min; total dose not to exceed 100 mg.	++	No	73% to 84%
Non-fibrin-specific:	-			
Streptokinase	Set up second IV line for the Streptokinase. The adult dose of streptokinase for STEMI is 1.5 Million U in 50 m L of 5% dextrose in water (DSW) given IV over 30-60 minutes. Allerigic reactions force the termination of many infusions before a therapeutic dose can be administered. Run Ringer's Lactate/Hartmann's Solution TXPG (in other line	No	Yes§	60% to 68%

*Strength of fibrin specificity; "++++" is more strong, "++" is less strong.

§Streptokinase is highly antigenic and absolutely contraindicated within 6 mo of previous exposure because of the potential for serious allergic reaction.

IV indicates intravenous; rPA, reteplase plasminogen activator; TIMI, Thrombolysis In Myocardial Infarction; TNK-tPA, tenecteplase tissue-type plasminogen activator; and tPA, tissue-type plasminogen activator.

- Monitor vital signs (BP, PR, RR, SPO₂) every 15 minutes during the infusions
- Continue monitoring patient for 30mins after the end of the infusions
- Transfer patient to CCU/ICU CONNECTED TO A DEFIBRILLATOR

