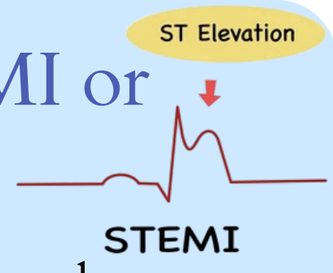
ACS UNPLUGGED: MASTERING ACUTE MANAGEMENT

Initial assessment

1. Do ECG within 10 min of First Medical Contact (FMC)
2. Cardiac Monitoring + Defibrillator Ready
3. Give Oxygen if SpO_2 < 90%
4. For Pain Relief: GTN SL (upto 3 times), Morphine IV

Step 1: Identify STEMI or NSTE-ACS



STEMI Criteria:
ST ↑ in ≥2 contiguous leads (age & gender-specific V2 and V3 leads)

STEMI equivalents: Posterior MI, LBBB

If STEMI → Assess PCI availability

Step 2: PCI vs Thrombolysis

if PCI Available in <120 min from First medical contact (FMC) →Primary PCI
if PCI Delay >120 min → Thrombolysis

Step 3: Loading doses for thrombolysis

Aspirin 300 mg (chew/crush)
Clopidogrel 300 mg (75 mg if >75y)
Atorvastatin 80 mg

Enoxaparin:
30 mg IV bolus → after 15 minutes 1 mg/kg SC 12hrly
Adjust for age >75 & renal failure

Step 4: Thrombolysis

Within 12 hours of chest pain onset
Agents:

- Tenecteplase (weight-based; half-dose if >75y)
- Streptokinase 1.5MU IV over 30–60 min

Check Contraindications! (Go through a checklist)

Step 5: Reperfusion Assessment

1. Relief of symptoms
2. ST elevation will go down ↓ ≥50% in 60–90 min
3. Achieve Hemodynamic/Electrical Stability

if Failed thrombolysis → Rescue PCI

N-STE ACS Management

1. Give Oxygen (target saturation >90%)
2. Pain relief (GTN sublingual up to three times), morphine IV
3. Loading doses

- Aspirin 300mg STAT (CHEWED/CRUSHED)
- Clopidogrel 300mg STAT (75mg if >75y)
- Statin -Atorvastatin 80mg STAT

4. Enoxaparin

- 1 mg/kg SC every 12 hours- minimum 48 hours until hospital discharge or maximum of 8 days.
- In patients with creatinine clearance of <30 mL/min regardless of age the SC doses are given once every 24 hours.

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RISK STARTIFICATION AND TIMING OF REFERRAL FOR CORONARY ANGIOGRAPHY IN NSTE-ACS

Choice of Timing of Management Strategy in NSTE- ACS

Unstable/very high-risk patient

Any of:

- Cardiogenic shock
- Signs and symptoms of HF, including new/worsening mitral regurgitation or acute pulmonary oedema
- Refractory angina
- Hemodynamic or electrical instability (eg: sustained VT or VF

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Immediate Invasive strategy (<2h)

High-risk NSTE-ACS

Any of:

- GRACE risk score >140
- Steeply rising Tn values on serial testing despite optimized medical therapy
- Ongoing dynamic ST segment changes

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Routine invasive

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Coronary angiography <24h

Intermediate-risk NSTE-ACS

Any of:

- GRACE risk score 109- 140
- Absence of ongoing ischemic c symptoms
- Stable or down trending Tn values

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Routine invasive

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Coronary angiography before hospital discharge (<72h)

Low-risk NSTE-ACS

Any of:

- GRACE risk score <109
- TIMI Risk score <2
- Absence of ongoing ischemic symptoms
- Tn <99th percentile (ie, unstable angina)
- No dynamic ST segment changes

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Routine invasive or selective invasive

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Coronary angiography before hospital discharge

Non- invasive risk startification during hospitalizatio n or recurrent symptoms

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Post ACS Medications

1. DAPT: Aspirin 75 mg + Clopidogrel 75 mg x 12 months then single antiplatelet life long
2. Statin: Atorvastatin 40–80 mg (LDL <55, <40 if recurrent)
3. Beta-blocker: If stable, start within 24 hrs
4. ACEi: Start within 48 hrs
5. PPI if on DAPT
6. Control risk factors and cardiac rehabilitiation

Contraindications for thromobolysis

Absolute Contraindications	Relative contrainidcations
• Previous Intra-Cranial Hemorrhage (ICH) / stroke of unknown origin • Ischemic stroke in the past 3 months • Severe uncontrolled hypertension (>180/110) despite treatment • Malignant intracranial neoplasm, aneurysm or AV malformation • History of closed head or facial trauma within 3 months • Recent intra-cranial or intra-spinal surgery within one month • Suspected aortic dissection • Active internal bleeding (excluding menses) or GI bleeding within one month • Known bleeding diathesis • Non-compressible punctures within the past 24 hours (LP, Liver biopsy)	• Previous ischemic stroke beyond 3 months • Pregnancy or within 1 week postpartum • Prolonged (>10 min) or traumatic CPR • Active peptic ulcer (only if the ulcer is actively bleeding; if only stool occult blood positivity, may be considered for thrombolysis) • Severe uncontrolled hypertension (SBP >180 mm Hg and/or DBP 110 mm Hg) at presentation (Patients presenting with hypertension should be administered beta blockers, nitroglycerin and analgesics promptly to lower blood pressure and reduce risk of ICH following thrombolysis) • Oral anticoagulation therapy (warfarin, DOAC) • Advanced liver disease • Infective Endocarditis • Major surgery or trauma within the past 3–4 weeks • Dementia or other intracranial pathology not listed in the absolute contraindications