Acute Coronary Syndromes

Antiplatelet therapy, reperfusion strategy and timing, cardiogenic shock management, secondary prevention pharmacotherapy, and DAPT duration for STEMI and NSTE-ACS.

2025 ACC/AHA/ACEP/NAEMSP/SCAI
Acute Coronary Syndromes Guideline
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COR — I · Recommended | IIa · Reasonable | IIb · May Consider | III · No Benefit / Harm

1 Initial Antiplatelet Therapy — Aspirin & Oral P2Y12

All patients with ACS, as soon as possible after presentation

I A	**Aspirin** loading dose (162–325mg, chewed) then 75–100mg daily maintenance — recommended to reduce death/MACE.
I A	An oral **P2Y12 inhibitor** added to aspirin recommended in all ACS to reduce MACE.
I B-R	STEMI managed with PPCI — **prasugrel or ticagrelor** preferred to reduce MACE/stent thrombosis; clopidogrel if unavailable/contraindicated (I, C-LD).
I A	STEMI treated with **fibrinolytic therapy** — clopidogrel administered concurrently to reduce death/MACE.
I B-R	NSTE-ACS undergoing PCI — **prasugrel or ticagrelor** recommended; ticagrelor if managed without planned invasive evaluation.
III Harm · B-R	History of **stroke/TIA** — prasugrel should not be administered.

AGENT	LOADING DOSE	MAINTENANCE
Aspirin	162–325mg PO	75–100mg PO daily
Clopidogrel	300–600mg (300mg if age >75y + lytics)	75mg PO daily
Prasugrel	60mg PO	10mg daily (5mg if <60kg or ≥75y)
Ticagrelor	180mg PO	90mg PO twice daily

2 STEMI — PPCI Timing & Fibrinolytic/Pharmacoinvasive Strategy

I A	Symptom onset **<12h** — PPCI with goal FMC-to-device **≤90min** (≤120min if transfer required) to improve survival.
I B-R	**Cardiogenic shock** or hemodynamic instability — emergency revascularization (PCI or CABG) indicated irrespective of time from onset.
IIa B-NR	Symptom onset **12–24h** — PPCI reasonable to improve outcomes.
IIa C-LD	Onset **>24h** with ongoing ischemia or life-threatening arrhythmia — PPCI reasonable.
III NB · B-R	Stable, totally occluded artery **>24h**, no ongoing ischemia/HF/arrhythmia — PPCI **should not** be performed.
I A	Non–PCI-capable facility, transfer time >120min — immediate **transfer to PCI-capable center** after fibrinolytic therapy recommended.
I B-R	**Suspected failed reperfusion** — immediate angiography with rescue PCI recommended to reduce death/reinfarction.
I B-R	Successful lysis — early angiography **2–24h** post-fibrinolytic with intent to PCI recommended.

3 NSTE-ACS — Invasive Strategy Selection & Timing

I A	Intermediate/high ischemic risk, candidate for revascularization — **invasive approach** during hospitalization recommended.
I C-LD	Refractory angina or hemodynamic/electrical instability — **immediate invasive strategy** indicated.
IIa B-R	**High-risk** for ischemic events — early invasive strategy (**within 24h**) reasonable.
IIa B-R	Not high-risk, intended invasive — reasonable to angiogram **before discharge**.

4 Cardiogenic Shock — Revascularization & MCS

Occurs in ~10% of STEMI; 40–50% early mortality

I B-R	ACS + cardiogenic shock/instability — **emergency revascularization** of culprit vessel (PCI or CABG) indicated to improve survival, irrespective of time from onset.
III Harm · B-R	**Routine PCI of noninfarct artery** at time of PPCI should not be performed — higher risk of death/renal failure.
IIa B-R	Selected patients with severe/refractory shock — **microaxial flow pump** reasonable to reduce death.
IIa B-NR	Mechanical complication of ACS — short-term MCS reasonable as bridge to surgery.
III NB · B-R	Routine **IABP or VA-ECMO** not recommended — lack of survival benefit.

5 Secondary Prevention Pharmacotherapy

BETA BLOCKERS

I A	No contraindications — early (<24h) oral beta blocker recommended to reduce reinfarction/VF.

RAAS INHIBITORS

I A	High-risk (LVEF ≤40%, HTN, DM, anterior STEMI) — ACEi or ARB indicated.
I B-R	LVEF ≤40% + HF symptoms/DM — **MRA** indicated.

LIPID MANAGEMENT

I A	**High-intensity statin** recommended for all to reduce MACE.
I A	On max statin, LDL-C ≥70mg/dL — add **nonstatin** agent.

6 DAPT Duration — First 12 Months Postdischarge

I A	Not at high bleeding risk — DAPT (aspirin + oral P2Y12) for **at least 1 year** to reduce MACE.
I A	Tolerated ticagrelor-based DAPT — **transition to ticagrelor monotherapy ≥1 month** post-PCI to reduce bleeding.
I A	High GI bleeding risk — **PPI** recommended in combination with DAPT/OAC.
IIb B-R	De-escalation (ticagrelor/prasugrel → clopidogrel) after 1 month may be reasonable to reduce bleeding.
IIb B-R	High bleeding risk undergoing PCI — transition to **single antiplatelet** after 1 month may be reasonable.

Rao SV, O'Donoghue ML, Ruel M, et al. 2025 ACC/AHA/ACEP/NAEMSP/SCAI Guideline for the Management of Patients With Acute Coronary Syndromes. *J Am Coll Cardiol.* 2025;85(22):2135–2237.