Medication Management in Patients Post-Myocardial Infarction

Cardiovascular (CV) disease remains the leading cause of death in the United States, with one American experiencing a myocardial infarction (MI) approximately every 40 seconds.[1] In addition to lifestyle modifications, the American College of Cardiology Foundation and American Heart Association guidelines for ST-Elevation Myocardial Infarction (STEMI) and Non ST-Elevation Myocardial Infarction (NSTEMI) recommend specific therapies for secondary prevention of CV events.[2-3] The following routine medical therapies are recommended indefinitely unless otherwise stated:

Formulary Treatment Options for Management of Patients Post-MI[2-4]			
Drug Category	**Generic Name (Brand Name)**	**Target Dose**	**Clinical Justification**
Salicylates	aspirin (Ecotrin)	81 mg once daily	• Reduce risk of MI, stroke, and CV death by reducing platelet aggregation
$P2Y_{12}$ inhibitors	clopidogrel (Plavix)	75 mg once daily	• Reduce thrombosis risk by preventing platelet aggregation • Place in therapy: ○ Clopidogrel is preferred in patients with h/o GI bleed or intolerance to aspirin ○ Ticagrelor or prasugrel are preferred over clopidogrel in patients undergoing PCI ○ DAPT recommended post-STEMI with stent placement • Treatment course: at least 1 year
	prasugrel¥ (Effient)	5 to 10 mg once daily	
	ticagrelor¥ (Brilinta)	90 mg twice daily	
Beta blockers (BB)	atenolol (Tenormin)	100 mg once daily	• Reduce mortality and morbidity by reducing cardiac mortality, sudden death, and reinfarction • Treatment course: 3 years • Metoprolol tartrate twice daily can be switched to metoprolol succinate ER (Toprol XL) once daily with the same total daily dose
	bisoprolol (Zebeta)	10 mg once daily	
	carvedilol (Coreg)	25 mg twice daily	
	metoprolol tartrate (Lopressor)	100 mg twice daily	
ACE-i	benazepril (Lotensin)	40 mg once daily	• Reduce fatal and nonfatal major CV events by lowering preload and afterload through inhibition of the renin-angiotensin-aldosterone system • Consider ARB therapy if ACE-i intolerant
	enalapril (Vasotec)	40 mg once daily	
	lisinopril (Zestril)	40 mg once daily	
ARB	irbesartan (Avapro)	300 mg once daily	
	losartan (Cozaar)	100 mg once daily	
	telmisartan (Micardis)	80 mg once daily	
	valsartan (Diovan)	160 mg twice daily	
Statins	atorvastatin (Lipitor)	40 to 80 mg once daily	• High-intensity statins reduce major ASCVD events through LDL-C lowering in patients under 75 years of age • For patients over 75 years of age, a moderate-intensity statin is recommended
	rosuvastatin (Crestor)	20 to 40 mg once daily	
Nitrates	nitroglycerin (Nitrostat)	0.4 mg SL every 5 min as needed for chest pain (up to 3 doses)	• Reduce ischemic anginal symptoms as needed in patients with recurrent ischemic pain

LDL-C = Low-Density Lipoprotein Cholesterol; ASCVD = atherosclerotic cardiovascular disease; SL = sublingually; PCI= percutaneous coronary intervention; DAPT= dual antiplatelet therapy; ACE-i=Angiotensin-converting enzyme inhibitors; ARB=Angiotensin II receptor blockers; ¥Prior authorization is required

References

1. Benjamin E, Muntner P, Alonso A, et al. (2019). Heart Disease and Stroke Statistics – 2019 Update: A Report from the American Heart Association. *Circulation* 2019;139:e56–e528.
2. O'Gara P, Kushner F, Ascheim D, et al. (2013). 2013 ACCF/AHA Guideline for the Management of ST-Elevation Myocardial Infarction. *Circulation*. 2013;127:e362-e425.
3. Amsterdam E, Wenger N, Brindis R, et al. (2014). 2014 AHA/ACC Guideline for the Management of Patients with Non ST-Elevation Acute Coronary Syndromes. *Circulation*. 2014;130:e344–e426.
4. Grundy S, Stone N, Baley A, et al. (2018). 2018 AHA/ACC/AACVPR/AAPA/ABC/ACPM/ADA/AGS/APhA/ASPC/NLA/PCNA Guideline on the Management of Blood Cholesterol.

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