

Common Medications for Stable IHD¹

Please refer to [Healthier SG whitelist](#) for the full list of subsidised drugs

Drug class / Drug	Pharmacology	Recommended dose	Contraindication Side Effect	Remarks
Non-steroidal Anti-inflammatory drug (NSAID)				
Aspirin	Acts via irreversible inhibition of platelet cyclooxygenase-1 (COX-1) and thus thromboxane production.	75–100mg OD	<p>Contraindications:</p> <ul style="list-style-type: none"> Hypersensitivity to NSAIDs Patients with asthma, rhinitis and nasal polyps <p>Common side effects:</p> <ul style="list-style-type: none"> Bleeding Tinnitus 	<ul style="list-style-type: none"> Low-dose aspirin is recommended in all stable IHD patients. (Class 1, Level A)
P2Y₁₂ inhibitors				
Clopidogrel	Acts as antagonists of the platelet adenosine diphosphate (ADP) receptor P2Y ₁₂ , thereby inhibiting platelet aggregation.	75mg OD	<p>Contraindications:</p> <ul style="list-style-type: none"> Active pathological bleeding (e.g. peptic ulcer, intracranial haemorrhage) Avoid Proton Pump Inhibitors (PPIs) (where possible), anticoagulants, NSAIDs, fluoxetine, fluvoxamine due to interaction risks. <p>Common side effects:</p> <ul style="list-style-type: none"> Gastrointestinal (GI) bleeding Haemorrhage 	<ul style="list-style-type: none"> Clopidogrel is indicated as an alternative in case of aspirin intolerance. (Class 1, Level B) Premature withdrawal of clopidogrel in patients with drug-eluting stents (within the past 1-3 months) may be associated with stent thrombosis and potentially fatal consequences; consider seeking advice from cardiologist if cessation is required Evidence for monotherapy with other P2Y₁₂ inhibitors e.g. prasugrel, ticagrelor is limited.

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Short-acting nitrates				
Sublingual Glyceryl Trinitrate	Relax vascular smooth muscle in arteries and veins and also reduced preload, leading to reduction in myocardial oxygen demand. Onset of action: <ul style="list-style-type: none">Sublingual tablet / Translingual spray: 1–3 min	Sublingual Glyceryl Trinitrate: 0.3–0.6mg every 5 min until the pain goes or maximum of 1.2mg within 15 min	Contraindications: <ul style="list-style-type: none">Hypertrophic obstructive cardiomyopathy Common side effects: <ul style="list-style-type: none">HeadacheFlushingHypotensionSyncopeReflex tachycardia	<ul style="list-style-type: none">Short-acting nitrates are recommended for immediate relief of angina in patients with stable IHD. (Class 1, Level B)Avoid concurrent use of phosphodiesterase-5 (PDE-5) inhibitors (e.g. sildenafil) due to risk of severe hypotension.Long-acting nitrates are recommended as 2nd line treatment for prevention of angina; dose according to heart rate, blood pressure and tolerance.
Translingual Glyceryl Trinitrate Spray		Translingual Glyceryl Trinitrate Spray: 0.4mg (1 spray) every 5 min up to 3 doses within 15 min		
Long-acting nitrates				
Isosorbide Mononitrate	Relax vascular smooth muscle in arteries and veins and also reduced preload, leading to reduction in myocardial oxygen demand.	Isosorbide Mononitrate: Initial: 30–60mg OM, may titrate to 120mg OM	Contraindications: <ul style="list-style-type: none">Hypertrophic obstructive cardiomyopathy Common side effects: <ul style="list-style-type: none">HeadacheFlushingHypotensionSyncopeReflex tachycardia	<ul style="list-style-type: none">When using long-acting nitrates, follow the recommended dosing instructions to reduce risks of tolerance
Isosorbide Dinitrate	Onset of action: Sublingual tablet / Translingual spray: 1–3 min	Isosorbide Dinitrate: Initial: 5–20mg BD–TDS, may titrate to 10–40mg BD–TDS		
Trimetazidine	Improve cellular tolerance to ischemia by inhibiting fatty acid metabolism and secondarily by stimulating glucose metabolism.	Immediate-release trimetazidine: 20mg TDS Modified-release trimetazidine: 35mg BD	Contraindications: <ul style="list-style-type: none">Parkinson's diseaseTremors and movement disordersSevere renal impairment Common side effects: <ul style="list-style-type: none">Gastric discomfortNauseaHeadacheMovement disorders	<ul style="list-style-type: none">Trimetazidine may be considered for 2nd-line treatment for prevention of angina (Level 2b, Class B)

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Beta blocker				
Metoprolol	Acts directly on the heart to reduce heart rate, contractility, AV condition and ectopic activity. They may increase perfusion of ischaemic areas by prolonging the diastole and increasing vascular resistance in non-ischemic areas.	Immediate-release metoprolol tartrate: Initial: 50mg BD, may titrate dose up to 200mg BD	Contraindications: <ul style="list-style-type: none">Severe bradycardiaSick sinus syndrome2nd- or 3rd-degree heart blockCardiogenic shockRefractory heart failureAsthma Common side effects: <ul style="list-style-type: none">BradycardiaFatigueDepressionBronchospasmPeripheral vasoconstrictionPostural hypotensionImpotenceHypoglycaemia	• 1 st -line treatment for prevention of angina. (Level 1, Class A)
Bisoprolol		Bisoprolol: 2.5–10mg OD		
Atenolol		Atenolol: 50–100mg OD		
Carvedilol		Carvedilol: Initial: 12.5mg BD, may titrate to 25mg BD		
Angiotensin converting enzyme (ACE) inhibitors				
Captopril	Blocking formation of angiotensin II formation: <ul style="list-style-type: none">Cause dilation of arteries and veins, thus reducing arterial pressure, preload and afterload on heart.Down regulate sympathetic adrenergic activity.Promote renal excretion of sodium and water and thus reducing blood volume, venous pressure and arterial pressure.	Captopril: Initial: 6.25mg TDS, may titrate up to 50mg TDS	Contraindications: <ul style="list-style-type: none">History of angioedemaBilateral renal artery stenosisPregnancy Common side effects: <ul style="list-style-type: none">CoughHypotensionHyperkalaemiaDizzinessHeadache	• ACE inhibitors should be prescribed in all patients with Stable IHD who also have hypertension, diabetes mellitus, Left Ventricular Ejection Fraction (LVEF) 40% or less, or chronic kidney disease (CKD) unless contraindicated. (Level 1, Class A)
Enalapril		Enalapril: Initial: 2.5mg BD, may titrate to 20mg BD		
Lisinopril		Lisinopril: Initial: 2.5–5mg OD, may titrate to 40mg OD		

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Perindopril	<ul style="list-style-type: none">Inhibit cardiac and vascular remodelling associated with chronic hypertension, heart failure, and myocardial infarction.	Perindopril: Initial: 4mg OD, may titrate to 16mg OD		
Angiotensin Receptor Blockers (ARB)				
Losartan	Blocking of angiotensin II receptors on blood vessels and other tissues.	Losartan: 50–100mg OD	Contraindications: <ul style="list-style-type: none">History of angioedemaBilateral renal artery stenosisPregnancy Common side effects: <ul style="list-style-type: none">HypotensionHyperkalaemiaDizzinessHeadache	<ul style="list-style-type: none">ARBs should be prescribed in all patients with Stable IHD who also have hypertension, diabetes mellitus, left ventricular systolic dysfunction, or Chronic Kidney Disease (CKD) and have indications for, but are intolerant of ACE inhibitors. (Level 1, Class A)
Irbesartan	They have similar actions as ACE inhibitors.	Irbesartan: 150–300mg OD		
Candesartan		Candesartan: 8–32mg OD		
Valsartan		Valsartan: Initial: 20mg BD, may titrate to 160mg BD		
Telmisartan		Telmisartan: Initial: 40mg OD, may titrate to 80mg OD		
Non-dihydropyridine (DHP) calcium channel blocker				
Verapamil	Acts by vasodilation and reduction of the peripheral vascular resistance.	Immediate-Release verapamil: 80–160mg TDS Extended-release verapamil: 240mg OD–BD	Contraindications: <ul style="list-style-type: none">2nd-or 3rd-degree AV blockSick sinus syndromeHypotension Common side effects: <ul style="list-style-type: none">HeadacheGingival hyperplasiaConstipationHypotensionBradycardia	<ul style="list-style-type: none">Long-acting non-DHP calcium channel blockers can be used as alternative treatment to beta blockers for prevention of angina if there are contraindications to beta blockers. (Class 2a, Level B)

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Diltiazem		<p>Immediate-release diltiazem: Initial: 30mg QDS, may titrate to 80mg QDS</p> <p>Extended-release diltiazem: Initial: 100mg OD, may titrate to 200mg OD</p>		<ul style="list-style-type: none"> Non-DHP calcium channel blockers (verapamil, diltiazem) should NOT be combined with beta blockers or ivabradine due to risk of heart block and bradycardia.
Dihydropyridine calcium channel blocker				
Long-acting Nifedipine		<p>Long-acting Nifedipine: Initial: 30–60mg OD, titrate as clinically indicated up to 120mg OD</p>	<p>Contraindications:</p> <ul style="list-style-type: none"> Severe aortic stenosis Cardiogenic shock Obstructive cardiomyopathy <p>Common side effects:</p> <ul style="list-style-type: none"> Headache Peripheral oedema Flushing Reflex tachycardia 	<ul style="list-style-type: none"> Calcium channel blockers can be prescribed as an alternative to beta blockers for prevention of angina if beta blockers are contraindicated or cause unacceptable side effects. (Class 1, Level B) DHP calcium channel blockers can be combined with beta blockers for prevention of angina if initial treatment with beta blockers is unsuccessful. (Class 1, Level B)
Amlodipine		<p>Amlodipine: 5–10mg OD</p>		

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Statins				
Atorvastatin	<p>Acts by competitively inhibiting HMG-CoA reductase, the enzyme that catalyses the rate-limiting step in cholesterol biosynthesis.</p> <p>HMG-CoA reductase inhibitors also possess pleiotropic properties including improved endothelial function, reduced inflammation at the site of the coronary plaque, inhibition of platelet aggregation and anticoagulant effects.</p>	Atorvastatin: Moderate-intensity: 10–20mg High-intensity: 40–80mg	Contraindications: <ul style="list-style-type: none"> • Active liver disease • Unexplained persistent elevation of serum transaminases • Pregnancy • Breastfeeding 	<ul style="list-style-type: none"> • In addition to therapeutic lifestyle changes, a moderate or high dose of a statin therapy should be prescribed, in the absence of contraindications or documented adverse effects. (Class 1, Level B) • For patients with established IHD, high intensity statin therapy (atorvastatin or rosuvastatin) is recommended, should there be difficulty achieving the LDL target.
Lovastatin		Lovastatin: Moderate-intensity: 40mg	Common side effects: <ul style="list-style-type: none"> • Myalgia • Headache • GI discomfort 	
Rosuvastatin		Rosuvastatin: Moderate-intensity: 5–10mg High-intensity: 20–40mg	Rare side effects: <ul style="list-style-type: none"> • Rhabdomyolysis 	
Simvastatin		Simvastatin Moderate intensity: 20–40mg High-intensity: 40–80mg		