

Type	Drugs	Action	Route of administration	Uses	Adverse effects Or Contraindicated
Organic nitrates	<ol style="list-style-type: none"> Glyceryl trinitrate (GTN) ($t_{1/2}$ 3 min) Isosorbide dinitrate ($t_{1/2}$ 20 min) Isosorbide mononitrate ($t_{1/2}$ 4 hr) 	<ol style="list-style-type: none"> Decrease $\downarrow\downarrow$ oxygen demand by reducing cardiac work Increase $\uparrow\uparrow$ oxygen supply by reversing coronary artery spasm by vasodilation Relax all types of smooth muscles, vascular & non-vascular Inhibit platelet aggregation 	<ol style="list-style-type: none"> GTN \rightarrow sublingual \Rightarrow (Duration of action \rightarrow 30 min) GTN \rightarrow transdermally as an ointment or skin patch (Duration of action \rightarrow 10 hrs) Isosorbide dinitrate \rightarrow orally (Duration of action \rightarrow 6 hrs) sublingual (Duration of action \rightarrow 60 min) Isosorbide mononitrate \rightarrow orally (Duration of action \rightarrow 6 hrs) 	<ol style="list-style-type: none"> Relieve acute attacks For prophylaxis against possible attacks Provide long term prophylaxis against anginal attacks 	Adverse effects <ol style="list-style-type: none"> Headache Postural hypotension Tachycardia Flushing
Beta-blockers	<ol style="list-style-type: none"> Atenolol metoprolol 	<ol style="list-style-type: none"> Decrease $\downarrow\downarrow$ oxygen demand by reducing cardiac work Decrease $\downarrow\downarrow$ ABP Have cardioprotective effects through their: Negative inotropic & chronotropic effect 		<ol style="list-style-type: none"> Given daily for prophylaxis against anginal attacks 	Contraindicated <ol style="list-style-type: none"> Asthma Diabetes Severe bradycardia Peripheral vascular disease Chronic obstructive pulmonary disease (COPD)
Calcium channel blockers (CCB)	<ol style="list-style-type: none"> Verapamil (mainly affects <u>myocardium</u>) Nifedipine (mainly affects <u>vascular smooth muscle</u>) Diltiazem (intermediate in its action) 	<ol style="list-style-type: none"> Decrease $\downarrow\downarrow$ oxygen demand by reducing cardiac work Increase $\uparrow\uparrow$ oxygen supply by reversing coronary artery spasm by vasodilation Have cardioprotective effects through their: Negative inotropic & chronotropic effect Prevent influx of calcium through slow Ca channels during phase 2 of action potential 		<ol style="list-style-type: none"> Prophylaxis of classic angina pectoris treatment of acute variant angina attacks treatment of Prinzmetal's angina due to acute coronary spasm Alternative to beta-blockers in presence of contraindications to them With beta-blockers in resistant angina using Nifedipine 	