







Topical Glaucoma Medications in NZ

MEDICATION BY CLASS	METHOD OF IOP-LOWERING ACTION	TREATMENT EFFICACY	ORDER OF TREATMENT	DAILY DOSAGE	EYE SIDE EFFECTS	SYSTEMIC SIDE EFFECTS	CONTRAINDICATIONS AND PRECAUTIONS	
 <p>Prostaglandin analogues</p> <ul style="list-style-type: none"> Latanoprost 0.005% (Latanoprost, Hysite*) Travoprost 0.004% (Travopt, Travatan) Bimatoprost 0.03% (Bimatoprost Multichem, Bimatoprost Actavis*, Lumigan*, Lumigan minims*) 	Increase aqueous humour outflow via the uveoscleral pathway	25-35% reduction in IOP, maximum effect after 10-12 hours	First	Once daily	<ul style="list-style-type: none"> Increased iris pigmentation, darker, longer and thicker eyelashes, periorbital pigmentation, orbital fat atrophy conjunctival hyperaemia 	Rare, but can cause headache, asthma or bradycardia	Precaution in individuals with ocular inflammation, history of herpetic eye disease, aphakic and psuedophakic eyes (potential for macular oedema), asthma, low blood pressure, heart failure	
 <p>Beta-blockers</p> <ul style="list-style-type: none"> Non-selective beta-blockers Timolol 0.25%, 0.5% (Arrow Timolol, Timoptol XE) Levobunolol 0.25% 0.5% (Betagan*) Selective beta-blocker Betaxolol 0.25%, 0.5% (Betoptic) 	Reduce aqueous humour production	20-30% reduction in IOP, maximum effect after 2 hours	First or second	Once (in the morning) or twice daily	<ul style="list-style-type: none"> Stinging or burning sensation on instillation, blurred vision 	Bradycardia, bronchospasm, hypotension, impotence, low mood, hair loss	Contraindicated in sinus bradycardia, history of cardiac failure, cardiogenic shock. Precaution in patients with asthma or COPD (selective beta-blocker preferred)	
 <p>Alpha-2 agonists</p> <ul style="list-style-type: none"> Brimonidine 0.2% (Arrow Brimonidine, Alphagan*), 0.15% (Alphagan P*) Apraclonidine 0.5% (Iopidine*) 	Reduce aqueous humour production and increase aqueous outflow via uveoscleral pathway	12-25% reduction in IOP, maximum effect after 2-3 hours	Second	Two to three times daily	<ul style="list-style-type: none"> Ocular allergy is common, conjunctival hyperaemia, burning or stinging sensation, blurred vision conjunctivitis 	Dry mouth, headache, fatigue, dizziness	Contraindicated in patients taking monoamine oxidase inhibitors or tricyclic antidepressants. Precaution in severe cardiovascular disease	
 <p>Carbonic anhydrase inhibitors</p> <ul style="list-style-type: none"> Dorzolamide 2% (Trusopt) Brinzolamide 1% (Azopt) 	Reduce aqueous humour production	15-25% reduction in IOP, maximum effect after 2-3 hours	Second	Two to three times daily	<ul style="list-style-type: none"> Burning or stinging sensation on instillation conjunctival hyperaemia 	Metallic taste, nausea, dry mouth, fatigue, hair loss	Contraindicated in patients with allergy to sulfonamides, severe renal impairment. Precaution in patients with corneal craft or endothelial dystrophy (can cause corneal oedema), severe hepatic impairment	
 <p>Cholinergics (Miotics)</p> <ul style="list-style-type: none"> Pilocarpine 1%, 2% (Isopto carpine, pilocarpine minims 2%) 	Increase aqueous humour outflow via trabecular meshwork pathway	15-20% reduction in IOP, maximum effect after 2-3 hours	Third	Three to four times daily	<ul style="list-style-type: none"> Eye pain, blurred vision (accommodative spasm), miosis, retinal detachment (rare), cataract with prolonged use 	Headache, gastrointestinal upset, dizziness	Contraindicated in patients with uveitis, glaucoma with pupillary block. Precaution in patients with history of or susceptible to retinal detachment, lens opacity on visual axis	
 <p>Combination therapies</p> <ul style="list-style-type: none"> Brimonidine 0.2%, timolol 0.5% (Combigan) Dorzolamide 2%, timolol 0.5% (Dortimopt, Arrow Dortim*, Cosopt*) Travoprost 0.004%, timolol 0.5% (DuoTrav*) Bimatoprost 0.03%, timolol 0.5% (Ganfort*, Ganfort minims*) 	As for individual medication components	25-35% reduction in IOP	Second		<ul style="list-style-type: none"> As for individual components 	As for individual components	As for individual components	
				Twice daily				
					Twice daily			
					Once daily			
				Once daily				