

Drug Information Table

Cholinergic agonists, Cholinesterase inhibitors, and Beta adrenergic blockers ophthalmic drops

Therapeutic Use	Administration	
<ul style="list-style-type: none"> • Beta blockers: Topical therapy that helps lower IOP in chronic open-angle glaucoma and acute closed angle glaucoma • Cholinergic agonists and cholinesterase inhibitors: Topical therapy that helps lower IOP in glaucoma; adjunct to laser and other eye surgeries and procedures 	<ul style="list-style-type: none"> • echothiophate: Administer in evening at least 5 min. apart from other eye drops • all eye drops: hold pressure on puncta and nasolacrimal sac at least 60 seconds after instillation • all eye drops: take care not to touch or drop the eye dropper; when instilling eye drops for a patient, apply clean gloves, and instruct patient to wash hands before instilling eye drops • Do not apply with contact lens in place 	
Side/Adverse Effects	Interventions	Patient Instructions
<ul style="list-style-type: none"> • beta blockers: stinging, burning, and eye discomfort 	<ul style="list-style-type: none"> • Monitor for these effects 	<ul style="list-style-type: none"> • Advise patient that these effects are transitory after application; patient should not rub eyes
<ul style="list-style-type: none"> • beta blockers: systemic cardiac or respiratory effects (bradycardia, hypotension, bronchospasm) 	<ul style="list-style-type: none"> • Monitor vital signs • Hold gentle pressure on puncta and nasolacrimal sac at least 60 seconds immediately after instilling to minimize systemic effects 	<ul style="list-style-type: none"> • Instruct patient on correct instillation technique to minimize systemic effects • Instruct patient to report slow pulse, fainting spells, or wheezing to provider
<ul style="list-style-type: none"> • Cholinergic agonists and cholinesterase inhibitors: systemic effects (urinary urgency, bradycardia, and constriction of the bronchioles) 	<ul style="list-style-type: none"> • Monitor vital signs • Hold gentle pressure on puncta and nasolacrimal sac at least 60 seconds immediately after instilling to minimize systemic effects 	<ul style="list-style-type: none"> • Instruct patient on correct instillation technique to minimize systemic effects • Instruct patient to report urinary urgency, slow heart rate, and wheezing to provider
<ul style="list-style-type: none"> • pilocarpine: decreased visual acuity (especially at night), headache (occurs more often in younger patients and may subside with time) 	<ul style="list-style-type: none"> • Monitor for these effects • Administer mild analgesic for headache that does not resolve shortly after administration of drug • Implement safety measures for nighttime ambulation 	<ul style="list-style-type: none"> • Instruct patient to report decreased visual acuity and headache to provider • Avoid driving, especially at night, and participating in other activities that require good visual acuity if vision is affected
<ul style="list-style-type: none"> • Pilocarpine: retinal detachment could occur 	<ul style="list-style-type: none"> • Monitor for symptoms of retinal detachment 	<ul style="list-style-type: none"> • Teach patient to recognize symptoms of retinal detachment (dark floaters, flashes of light, feeling as if “curtain” has been pulled over part of vision in one eye)
<ul style="list-style-type: none"> • echothiophate: decreased visual acuity (especially at night), development of cataracts 	<ul style="list-style-type: none"> • Implement safety measures for nighttime ambulation • Observe for opacity behind pupil when shining penlight into eye • Report finding to provider 	<ul style="list-style-type: none"> • Avoid driving, especially at night, and participating in other activities that require good visual acuity if vision is affected • Instruct patient to report decrease in both day and night time vision to provider
Contraindications	Precautions	Interactions
<ul style="list-style-type: none"> • betaxolol <ul style="list-style-type: none"> ◦ heart block, bradycardia ◦ cardiogenic shock • timolol <ul style="list-style-type: none"> ◦ heart block and failure ◦ COPD, asthma, and acute bronchospasm • pilocarpine <ul style="list-style-type: none"> ◦ acute inflammatory eye disorders • echothiophate <ul style="list-style-type: none"> ◦ history of retinal detachment 	<ul style="list-style-type: none"> • betaxolol <ul style="list-style-type: none"> ◦ use of systemic beta blockers ◦ liver or renal disorders ◦ older adults ◦ diabetes ◦ airway disorders • timolol <ul style="list-style-type: none"> ◦ liver or renal disorders ◦ hyperthyroidism ◦ cerebrovascular disease, stroke ◦ older adults ◦ myasthenia gravis • pilocarpine <ul style="list-style-type: none"> ◦ chronic respiratory disorders ◦ hypertension ◦ gall bladder disease • echothiophate <ul style="list-style-type: none"> ◦ cardiac or chronic respiratory disease ◦ hyperthyroidism ◦ urinary tract blockage ◦ Parkinson’s disease 	<ul style="list-style-type: none"> • beta blockers <ul style="list-style-type: none"> ◦ use with systemic beta blockers cause increased systemic effects ◦ calcium channel blockers can increase systemic effects ◦ may interfere with effects of insulin in diabetic patients • pilocarpine <ul style="list-style-type: none"> ◦ pilocarpine antagonizes effect of anticholinergic drugs • echothiophate <ul style="list-style-type: none"> ◦ organophosphates for gardening may increase effects of the drug