

## Geriatric Fast Fact #27

### Identifying systemic medications as the etiology of ocular signs and symptoms in a geriatric patient

<u>Drug Class</u>	<u>Examples of common drugs</u>	<u>Condition</u>	<u>Eye Effects</u>	<u>Contraindications</u>
<u><math>\alpha</math>1-adrenergic blockers</u>	<u>Doxazosin</u> <u>Tamsulosin</u> , <u>Terazosin</u>	<u>Benign prostatic hyperplasia</u>	<u>Intraoperative floppy iris syndrome (IFIS)</u> <sup>1</sup>	<u>Surgeon must be aware before patients undergo cataract surgery</u> <sup>1</sup>
<u>Antiarrhythmics</u>	<u>Amiodarone</u>	<u>Cardiac arrhythmias</u>	<u>Colored rings or halos in visual fields; loss of lashes/eyebrows; yellow-brown deposits in conjunctiva; optic neuropathy; keratopathy; photosensitivity</u> <sup>1-4</sup>	-
<u>Anticholinergics</u>	<u>Oxybutynin</u> , <u>Solifenacin</u> , <u>Tolterodine</u>	<u>Overactive bladder, urinary urge incontinence</u>	<u>Acute angle closure glaucoma</u> <sup>5</sup>	<u>Anatomically narrow angles, untreated closed angle glaucoma</u> <sup>5</sup>
<u>Anticonvulsant</u>	<u>Topiramate</u>	<u>Seizures, migraines</u>	<u>Transient myopia; acute secondary angle-closure glaucoma; blurred vision; increased intraocular pressure; nystagmus</u> <sup>1-3</sup>	-
<u>Anti-estrogen therapy</u>	<u>Tamoxifen</u>	<u>Estrogen receptor positive breast cancer</u>	<u>Keratopathy; posterior subcapsular cataracts; crystalline retinopathy</u> <sup>1,2,4</sup>	-
<u>Anti- gamma-aminobutyric acid (GABA)transaminase</u>	<u>Vigabatrin</u>	<u>Seizures</u>	<u>Bilateral peripheral visual field constriction; acute angle closure glaucoma</u> <sup>1,4</sup>	-
<u>Antihistamines</u>	<u>Cetirizine</u> <u>Chlorpheniramine</u> ,	<u>Allergies</u>	<u>Dry eyes; decreased vision; pupillary</u>	-

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	<u>Diphenhydramine,</u> <u>Loratadine</u>		<u>changes; lacrimation</u> <sup>3</sup>	
<u>Antimalarials</u>	<u>Aminoquino-lines,</u> <u>Chloroquine,</u> <u>Hydroxychloroquine</u>	<u>Malaria,</u> <u>rheumatoid</u> <u>arthritis, lupus</u>	<u>Keratopathy;</u> <u>retinopathy</u> <sup>1,4</sup>	-
<u>Antioxidant</u>	<u>Ginkgo biloba</u>	<u>Dementia</u>	<u>Spontaneous</u> <u>hyphema; retinal</u> <u>hemorrhages</u> <sup>2,3</sup>	<u>Use with caution in</u> <u>patients taking</u> <u>aspirin and warfarin</u> <sub>2</sub>
<u>Antituberculosis therapy</u>	<u>Ethambutol,</u> <u>Isoniazid</u>	<u>Tuberculosis</u>	<u>Toxic optic</u> <u>neuropathy</u> <sup>2</sup>	-
<u>Antiviral</u>	<u>Amantadine</u>	<u>Influenza A</u>	<u>Keratopathy; corneal</u> <u>edema</u> <sup>6</sup>	-
<u>Bisphosphonates</u>	<u>Alendronate,</u> <u>Etidronate</u> <u>Pamidronate,</u> <u>Risedronate,</u>	<u>Osteoporosis,</u> <u>Paget's disease</u> <u>of bone</u>	<u>Pain; photophobia;</u> <u>blurred vision;</u> <u>conjunctivitis; uveitis;</u> <u>episcleritis/scleritis;</u> <u>ptosis; nerve palsies</u> <sup>2</sup>	-
<u>COX-2 inhibitors</u>	<u>Celecoxib,</u> <u>Rofecoxib,</u> <u>Valdecoxib</u>	<u>Arthritis, acute</u> <u>pain</u>	<u>Blurred vision;</u> <u>conjunctivitis</u> <sup>2</sup>	-
<u>Corticosteroids</u>	<u>Cortisone,</u> <u>Dexamethasone,</u> <u>Hydrocortisone,</u> <u>Prednisone</u>	<u>Inflammatory</u> <u>disorders</u>	<u>Posterior subcapsular</u> <u>cataracts; increased</u> <u>intraocular pressure in</u> <u>susceptible</u> <u>individuals;</u> <u>immunosuppression</u> <u>leading to infectious</u> <u>complications;</u> <u>decreased vision;</u> <u>mydriasis;</u> <u>photophobia</u> <sup>1-3</sup>	-
<u>HMG-CoA Reductase Inhibitor</u>	<u>Atorvastatin,</u> <u>Fluvastatin,</u> <u>Lovastatin,</u> <u>Pravastatin,</u> <u>Rosuvastatin,</u>	<u>Hyperlipidemia</u>	<u>Diplopia; ptosis;</u> <u>ophthalmoplegia;</u> <u>localized myositis in</u> <u>orbital muscles</u> <sup>2</sup>	

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	Simvastatin			
Phosphodiesterase-5 Enzyme (PDE5) inhibitors	Sildenafil, Tadalafil, Vardenafil,	Erectile dysfunction	Bluish tinge/haze to vision; light sensitivity; blurred vision; conjunctival hyperemia; ocular pain <sup>1-3</sup>	Pilots should not use within 6 hours of performing duties; avoid in patients with nonarteritic anterior ischemic optic neuropathy <sup>1</sup>
<u>Retinoic Acid Derivative</u>	Isotretinoin	Acne, psoriasis	Blepharoconjunctivitis; dry eyes; transient blurred vision; myopic shifts; decreased night vision; keratitis; corneal opacities; photosensitivity; papilledema <sup>3,4</sup>	Not for use in pregnancy
<u>Sphingosine 1-Phosphate (S1P) Receptor Modulator</u>	Fingolimod	Multiple sclerosis	Cystoid macular edema <sup>7</sup>	
<u>thiazolidinedione</u>	Pioglitazone, Rosiglitazone	Diabetes	May increase risk of diabetic macular edema <sup>8</sup>	
Tricyclic antidepressants	Amitriptyline, Imipramine	Depression	Blurred vision; mydriasis; dry eyes; photosensitivity; cycloplegia; blepharospasm <sup>3,4</sup>	
Vitamin	Niacin	Hyperlipidemia	Cystoid macular edema; dry eyes; discoloration of eyelids; eyelid edema <sup>2</sup>	