

**Louisiana Pharmacists Association**

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**FOR IMMEDIATE RELEASE**

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**Louisiana Pharmacists Association Educates Patients about Glaucoma**

Glaucoma affects over 2 million Americans. According to the World Health Organization, it is a leading cause of blindness in the world.<sup>(5)</sup> There is no cure; however, medications or surgery can stop further vision damage.<sup>(1,5)</sup> Everyone is at risk for glaucoma and a comprehensive dilated eye exam is the most effective way to detect it.<sup>(4)</sup>

There are several types of glaucoma (open-angle glaucoma, closed-angle glaucoma and normal tension/pressure glaucoma) each progressively damages the optic nerve resulting in a loss of visual sensitivity and field.<sup>(1,2,3)</sup> Risk factors for glaucoma include: age over 60, being African American, a family history of glaucoma, medical conditions (diabetes, high blood pressure, heart disease) and physical injuries to the eye.<sup>(1)</sup> Corticosteroid use may also induce increased intraocular pressure causing glaucoma.<sup>(1,3)</sup>

Open-angle glaucoma is the most common type of glaucoma.<sup>(1,3,5)</sup> This form of glaucoma progresses slowly with no symptoms until a person begins to lose their peripheral vision.<sup>(4,3)</sup> Closed-angle glaucoma is the more dramatic form of the disease. An acute attack of closed-angle glaucoma occurs when there is a sudden increase of pressure in the eye; this a medical emergency.<sup>(1,2,3,4)</sup> During these acute episodes people report ocular pain, nausea, vomiting, abdominal pain, and extreme sweating.<sup>(3)</sup> People with closed-angle glaucoma may have occasional symptoms such as blurred or hazy vision and occasional headaches in between acute attacks.

There are a number of medications, as well as surgical interventions, used to treat glaucoma. Prostaglandin analogs work by increasing the outflow of aqueous fluid from the eye. These medications include Xalatan® (latanoprost), Lumigan® (bimatoprost), and Travatan Z® (travatan).<sup>(3,5)</sup> Beta blockers, such as timolol, work by decreasing the production of fluid that causes the increased intraocular pressure.<sup>(5)</sup> Alphagan®P (brimonidine) and Iopidine® (apraclonidine) are  $\alpha_2$ -adrenergic agonists that decrease production of fluid and increase the drainage of fluid buildup. Other medications that may be used include: carbonic anhydrase inhibitions (dorzolamide, brinzolamide), cholinergic agonists (pilocarpine, carbachol), and cholinesterase inhibitions (echothiophate).<sup>(3,5)</sup> Combination medications are available for patients who require more than one type of medication. These combinations help with convenience and adherence; and there might even be financial advantages if an insurance plan covers the combination therapy.<sup>(5)</sup> These

combination medications include Cosopt® (timolol and dorzolamide) and Combigan® (brimonidine and timolol).<sup>(3,5)</sup>

Treatment of glaucoma is lifelong. Successful treatment requires a well tolerated regimen, monitoring therapy consistently, and patient adherence.<sup>(3)</sup> Adherence to these medications is important because non-adherence can quickly progress to eye damage and blindness.<sup>(1)</sup> Pharmacists can educate patients about possible adverse events from therapy and how to correctly administer topical therapy.<sup>(3)</sup> If patients have any questions they can seek assistance from their doctor or local pharmacist.

(1) American Optometric Association. Glaucoma. American Optometric Association. 2014. <http://www.aoa.org/patients-and-public/eye-and-vision-problems/glossary-of-eye-and-vision-conditions/glaucoma?sso=y>. Accessed June 23, 2014.

(2) Casson, Robert J; Chidlow, Glyn; Wood, John PM; Crowston, Jonathan G; Goldberg, Ivan (2012). "Definition of glaucoma: Clinical and experimental concepts". *Clinical & Experimental Ophthalmology*40 (4): 341–9.

(3) Hill, Angela Massey, Slattum, Patricia W., Swerdlow, Russell H. Glaucoma. In: DiPiro, Cecily V., ed. *Pharmacotherapy Handbook*. New York: McGraw-Hill; 2009:66.

(4) National Eye Institute. Facts About Glaucoma. National Eye Institute. 2014. [https://www.nei.nih.gov/health/glaucoma/glaucoma\\_facts.asp](https://www.nei.nih.gov/health/glaucoma/glaucoma_facts.asp). Accessed June 23, 2014.

(5) Radhakrishnan, Sunita; Iwach, Andrew. Glaucoma Medications and Their Side Effects Glaucoma Research Foundation. Reviewed July 31, 2013. <http://www.glaucoma.org/treatment/glaucoma-medications-and-their-side-effects.php>. Accessed June 23, 2014.

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**The Louisiana Pharmacists Association, established in 1882, strives to promote the interests of all pharmacists of the State of Louisiana. For more information about the LPA and its benefits, contact Julie Fuselier or Phyllis Perron, LPA Co-Executive Directors at 225/346-6883 or visit our website at [www.louisianapharmacists.com](http://www.louisianapharmacists.com).**