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## Focus on Glaucoma

### A bucket full of adherence advice

Glaucoma patients hate their drops; these experts offer guidance on how to keep them adherent to treatment.

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**T**he bucket that holds patient compliance techniques for glaucoma treatments is filling up.

The bucket-is-half-empty folks might still describe these many evidence-based techniques as only "fairly successful." Yet their bucket-is-half-full counterparts might say the lists' components are varied and could improve patient compliance to a glaucoma medication regimen.

Consider:

- **Compare and compare.** Priya Desai, MD, of Matossian Eye Associates in suburban Philadelphia, relates glaucoma to any other chronic disease, be it diabetes or hypertension; it is likely the patient knows someone with one of those diagnoses. "I look at the diagnosis from their perspective. They feel that their eyes look normal, they are seeing well, and as result, it is very difficult for them to imagine that they have a blinding disorder." A person at significant risk of glaucoma gets the same chat.

- **Support your local pharmacist.** According to a recent study, adherence improved when the pharmacist chatted with at-risk patients.<sup>1</sup> A sample of the improvement in adherence rates: 4.8% for oral diabetes medications and 3.1% for beta-blockers. Researchers identified 60,000 at-risk patients across Pennsylvania who had at least one of five chronic diseases. The pharmacists answered only those questions asked by the patient. When the pharmacist provided more information, "patients felt as if they're not being heard," said one article.<sup>2</sup>

- **Send it via cyberspace.** A Harvard study from 2011, which looked at e-prescribing (at Caremark pharmacies) as a way to limit nonadherence, found that physicians who electronically sent the prescription discovered that 24% failed to have it filled. The nonadherent likely have money issues or don't have the drug on their health provider's formulary.<sup>3</sup>

- **Try a little electronic intervention?** At the Wilmer Eye Institute at Johns Hopkins University, Michael Boland, MD, PhD, and his colleagues, who have performed numerous studies looking at adherence and glaucoma medication, found that electronic intervention can help. In one study, patients received either a reminder text or a voice mail about their next glaucoma medications dose. The intervention increased adherence from 53% to 64%; post-intervention, the percentage climbed to 73%.<sup>4</sup>

Another Wilmer study, which used an electronically-programmed drug cap to record when the patient opened the eyedrop bottle, was designed to form a picture of those people who were not adherent. The results: They were a little younger than adherent people; were of African descent; were adherent for a shorter period of time; were less educated; scored lower on tests measuring mental status and depression.<sup>5</sup>

- **The surgery option.** This, says Dr. Desai, takes the adherence problem out of the patient's hands – for a bit. Since joining Matossian seven years ago, she has performed more selective laser trabeculoplasties (SLTs), going from 5% to at least 35% of all newly diagnosed glaucoma patients.

- **How about a new mindset?** Grant Corbett is a Canadian consultant who has been studying patient adherence for years. One piece of his evidence-based advice: Do not treat the patient like he or she is incompetent. Get the patient's input. It is a major reason that the pharmacy adherence programs, which he terms as "meaningful interactions that move the adherence needle," have worked.<sup>6</sup>

- **Change strategies.** Shan C. Lin, MD, clinical spokesperson for the American Academy of Ophthalmology and director of Glaucoma Service at the UCSF School of Medicine, says that the patients should think of their vision as \$1,000 deposit in the bank. Forgetting a glaucoma treatment is akin to a \$10 withdrawal that is not replaced. After many forgotten drops, the patients now have a near-empty bank account, and may soon end up with no money (blindness).

Since we can all relate to money, that analogy usually hits home.

- **Beware of physical reactions to questions.** You've asked your patient how she is doing with her drops; she sighs. E. Randy Craven, MD, chief of glaucoma at King Khaled Eye Specialist Hospital in Riyadh, Saudi Arabia, says your patient is telling you something. Ask if she is taking too many drops or whether she wants to change therapies.

If the patient indicates she is taking too many drops, then prescribing a combination drop, rather than adding adjunctive therapy, might be an option. Research has shown that prescription refill intervals increased for patients when a second-line therapy was added.<sup>7</sup>

**Table: Glaucoma Medications**

ALPHA AGONIST		
Company	Brand Name	Generic Name
Alcon, Inc.	Iopidine	Apraclonidine HCl 0.5%, 1%
Allergan Inc.	Alphagan P	Brimonidine tartrate 0.1%, 0.15%
BETA BLOCKERS		
Company	Brand Name	Generic Name

<b>Akorn Ophthalmics</b>	Timolol Maleate USP	Timolol Maleate 0.5%
<b>Alcon, Inc.</b>	Betoptic S	Betaxolol HCl 0.25%, 0.5%
<b>Allergan Inc.</b>	Betagan	Levobunolol HCl ophthalmic solution, USP 0.25%, 0.5%
<b>Bausch &amp; Lomb Inc.</b>	OptiPranolol	Metipranolol 0.3%
<b>ISTA Pharmaceuticals</b>	Istalol	Timolol Maleate Ophthalmic Solution 0.5%
<b>Merck &amp; Co. Inc.</b>	Timoptic-XE	Timolol maleate ophthalmic gel forming solution 0.25%, 0.5%
<b>Vistakon, Inc.</b>	Betimol	Timolol hemihydrate 0.25%, 0.5%
<b>CARBONIC ANHYDRASE INHIBITORS</b>		
<b>Company</b>	<b>Brand Name</b>	<b>Generic Name</b>
<b>Alcon, Inc.</b>	Azopt	Brinzolamide ophthalmic suspension 1%
<b>Fera Pharmaceuticals</b>	Neptazane	Methazolamide
<b>Merck &amp; Co. Inc.</b>	Trusopt	Dorzolamide HCl 2%
<b>Teva Pharmaceuticals</b>	Diamox Sequels	Acetazolamide
<b>CHOLINERGIC (MIOTIC)</b>		
<b>Company</b>	<b>Brand Name</b>	<b>Generic Name</b>
<b>Alcon, Inc.</b>	Isopto Carpine	Pilocarpine HCl 1%, 2%, 4%
<b>Alcon, Inc.</b>	Isopto Carbachol	Carbachol 0.75%, 1.5%, 3%
<b>Alcon, Inc.</b>	Pilopine HS Gel	Pilocarpine HCl gel 4%
<b>Bausch &amp; Lomb Inc.</b>	Pilocarpine HCl Ophthalmic Solution USP	Pilocarpine HCl 1%, 2%, 4%
<b>COMBINED MEDICATIONS</b>		
<b>Company</b>	<b>Brand Name</b>	<b>Generic Name</b>
<b>Allergan Inc.</b>	Combigan	Brimonidine Tartrate & Timolol Maleate
<b>Merck &amp; Co. Inc.</b>	Cosopt	Dorzolomide HCl & Timolol Maleate
<b>Alcon</b>	Simbrinza Suspension	Brinzolamide/Brimonidine tartrate ophthalmic suspension 1%/0.2%
<b>PROSTAGLANDIN ANALOGS</b>		
<b>Company</b>	<b>Brand Name</b>	<b>Generic Name</b>
<b>Alcon, Inc.</b>	Travatan Z	Travaprost 0.004%
<b>Allergan Inc.</b>	Lumigan	Bimatoprost 0.01%, 0.03%
<b>Merck &amp; Co.</b>	Zioptan	Tafuprost ophthalmic solution 0.0015%
<b>Pfizer Inc.</b>	Xalatan	Latanoprost 0.005%

Source: [Glaucoma.org](http://www.glaucoma.org)

• **The newly diagnosed.** Dr. Desai says she is finding glaucoma in patients at an earlier age because people are more careful of their eye care, and technology, like OCT, allows for a glaucoma diagnosis in its early stages.

This is good and bad. Good because the patients have a better chance of saving their sight, but bad because they face lifelong treatment. "They have to see me every few months," she says. "I will spend a lot of time talking to the patient."

But her patients, she says, have read about SLT. "I find more people asking for it. They don't want to be on drops."

It's 35% she needn't worry about, compliance-wise – at least until they are in need of drops, which Dr. Boland says will likely happen for half of them in two years.

"Laser certainly plays a role but is not the whole solution," he says.

• **The communication problem.** Dr. Boland, associate professor at Wilmer and health sciences informatics, director of information technology, says his group's research found doctors spend a lot of time talking (70% of all spoken words) about glaucoma and nearly all doctor-asked questions were closed-ended.<sup>8</sup>

This "study reported that adherence was significantly lower among doctor-dependent patients who learned everything they know from the physician, lacked confidence in their knowledge of glaucoma, and reported that their physicians did not elicit their participation ... by asking if they had questions or understood." **OM**

## REFERENCES

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