

THE INTERVENTIONAL GLAUCOMA MINDSET



A protocol to guide the patient's journey.

BY CHRISTINE FUNKE, MD

As cataract surgery has become more reliable, safe, and successful, ophthalmologists have become accustomed to offering surgically improved vision to patients. When the level of satisfaction they generally experience after cataract surgery is compared to what patients typically feel after traditional glaucoma filtration surgery, it is no wonder that many ophthalmologists prefer to treat glaucoma with topical drugs and leave surgical intervention to subspecialists. As the prevalence of the disease grows, however, more ophthalmologists are required to preserve patients' vision.

WHY ADOPT AN IG MINDSET?

Studies have shown that topical medical therapy is an unreliable form of glaucoma treatment because of patients' poor adherence to the prescribed drug regimen. A literature review of 34 articles found that up to 80% of patients demonstrated

noncompliance.¹ In the Glaucoma Adherence and Persistency Study (GAPS), a retrospective pharmacy claims analysis, more than 55% of patients stopped or had to restart refills of glaucoma medications.²

Recent evidence, moreover, suggests that patients' poor adherence to clinical follow-up is linked directly to medical therapy. In an analysis of 27 practices encompassing 253 providers and 193,711 patient visits, patients whose glaucoma was managed with topical drops were 2.1 times more likely to miss follow-up appointments than those whose disease was managed surgically (March 2025 data on file with Glaukos). Approximately 64% of patients managed with topical drops exhibited therapeutic lapses at 12 months.

A retrospective longitudinal cohort study used data from the Intelligent Research in Sight Registry to assess the association between a loss to follow-up (LTFU) and the risk of incident blindness in patients with primary

open-angle glaucoma (POAG).³

An LTFU was defined as 1 or more calendar years without an encounter. Of the 149,172 patients analyzed, 8.8% and 1.1% were LTFU in 1 to 2 years and 3 to 4 years, respectively. Importantly, the risk of developing blindness in at least one eye was found to be 2.17 times higher among patients who were LTFU for 3 to 4 years.

Given the poor rate of adherence to medical therapy, the high rate of lapses in follow-up care among patients receiving topical treatment, and the increased risk of blindness in individuals LTFU, IG seems a logical approach to most individuals with ocular hypertension (OHT) or glaucoma. An IG strategy can ease the burden of medication on patients, increase the rate of return visits to the clinic, and help safeguard patients LTFU.

HOW TO PURSUE IG Treatment Protocol

Surgeons interested in adopting an IG mindset may wonder which

TABLE. THE CONSENSUS PROTOCOL^a

Patient Category (Healthy/Uncomplicated)	First-Line Therapy	Second-Line Therapy	Third-Line Therapy	Fourth-Line Therapy	Fifth-Line Therapy
Ocular hypertension	Lasers (bridging ^b or supplemental ^c)	Procedural pharmaceuticals	Tissue-sparing MIGS ^d	MTMT	–
Mild glaucoma	Lasers (bridging or supplemental)	Procedural pharmaceuticals	Tissue-sparing MIGS	Non-tissue-sparing MIGS	MTMT
Moderate glaucoma	Lasers (bridging or supplemental)	Procedural pharmaceuticals	Tissue-sparing MIGS	Non-tissue-sparing MIGS	MTMT to filtering surgery
Severe glaucoma	Lasers skipped; procedural pharmaceuticals plus tissue-sparing MIGS	Non-tissue-sparing MIGS	MTMT and/or lasers	Filtering surgery	–

Abbreviation: MTMT, maximum tolerated medical therapy.

^aAdapted from Funke et al.⁴

^bBridging therapy: topical drops used to maintain IOP while awaiting procedural intervention.

^cSupplemental therapy: topical drops used in addition to a procedural intervention.

^dTissue-sparing MIGS: trabecular bypass or canaloplasty.

technology to learn first; whether they must know how to use every single laser system, procedural pharmaceutical agent, and MIGS device; and which procedure would be of most benefit to a given patient. The Interventional Glaucoma Working Group, composed of glaucoma specialists and general ophthalmologists, recognized these barriers and developed a consensus protocol on how to treat glaucoma in response.⁴ The goal was to create a road map for procedural glaucoma treatment with topical medications used as a bridge.

The protocol breaks IG options down into a few distinct categories to simplify the number of procedures

an ophthalmologist must master to become a true interventionalist. Patients were divided into four disease groups: OHT, mild POAG, moderate POAG, and severe POAG. The approach to treatment differs slightly for each of these groups. Although not every patient fits perfectly into this framework, the members of the Interventional Glaucoma Working Group agreed that the protocol's stepwise progression (Table) would work for a majority of patients with OHT or POAG.

Personal Experience

As a member of the Interventional Glaucoma Working Group, I found that my perspective changed with the protocol's creation. Specifically, I began to treat every patient in a more uniform way.

When I see a patient currently receiving topical glaucoma therapy who does not have a history of laser trabeculoplasty, procedural pharmaceuticals, or MIGS, I feel obligated to discuss dropless glaucoma options. My clinic has

transitioned from providing routine glaucoma checkups to offering solutions to the known issues related to therapy with topical drops.

Based on my experience, I would challenge readers to use the consensus protocol to build their own glaucoma treatment algorithm and then implement that algorithm in daily practice. ■

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