

## THROUGH THE LENS OF GLAUCOMA

### A Closer Look at Vision Health



## Glaucoma's Universal Presence: A Global Concern

An estimated **4.5 Million** people worldwide have become **Blind** due to **Glaucoma**

⇒ **Glaucoma** is responsible for over **12%** of all global **Blindness** causes

⇒ The **2nd** most common cause of **Blindness** worldwide is **Glaucoma**

**Percentage of population affected by glaucoma who are unaware of their condition**

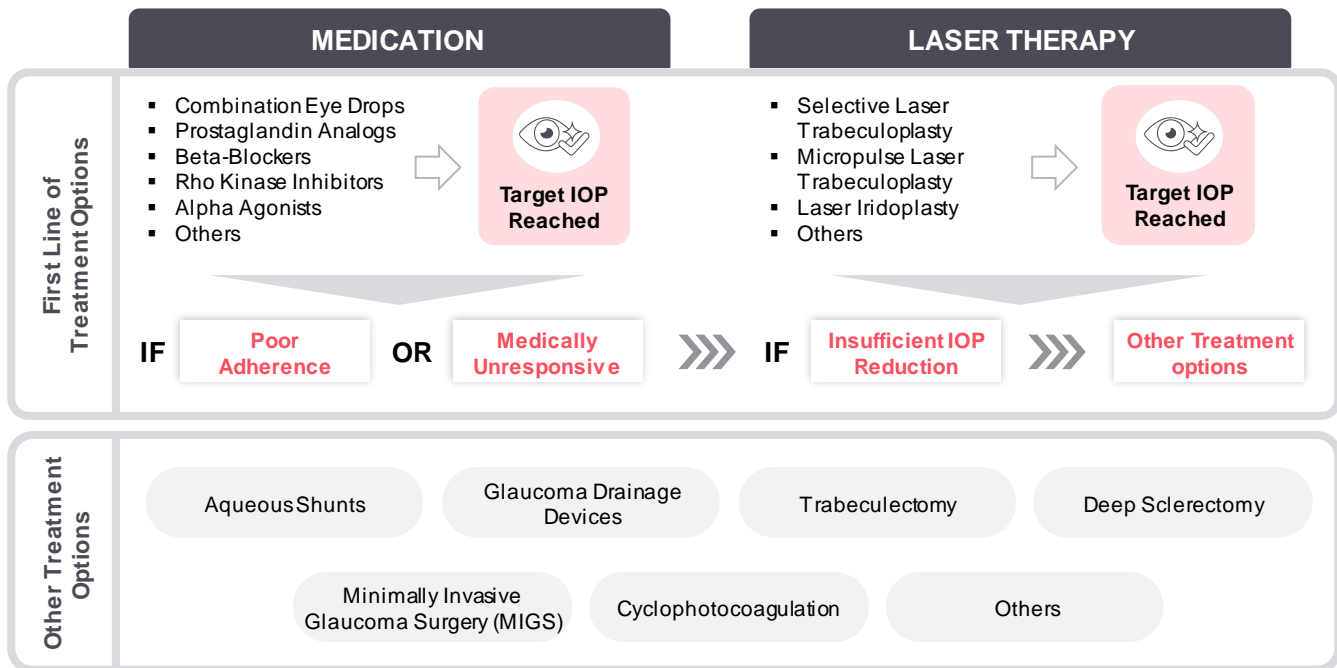
Up to **50%** in developed countries

May rise to **90%** in underdeveloped parts of the world

## Knowledge is Sight: Empower Yourself with Glaucoma Facts

- Open-angle glaucoma** accounts for about **90%** of all glaucoma cases, while **angle-closure glaucoma** is less common but often **more severe**
- As per **Centers for Disease Control and Prevention - African Americans** are **6-8 times** more likely to develop glaucoma than Caucasians
- Studies indicate that up to **60%** of glaucoma patients do not take their medications as prescribed
- Glaucoma is often called the **"silent thief of sight"** because it causes no pain and typically displays no symptoms until vision loss has occurred
- Annual economic burden** of glaucoma in the **United States** alone is estimated to be around **\$2.9 billion** in direct medical costs and productivity losses

## Tackling Glaucoma: Existing Line of Treatments



## Technologies Powering the Future of Glaucoma Diagnosis & Treatment

- Artificial Intelligence** & **Telehealth Diagnosis/Monitoring**
- Optical Coherence Tomography** & **Smart Wearables**
- Gene Therapy** & **Nanotechnology**
- Minimally Invasive Glaucoma Surgery** & **Personalized Medicine**

## Recent Innovations and Activities Advancing Glaucoma Detection and Treatment

- Micro Labs Ltd.** launched Trisopt, the **world's first fixed-dose** combination of **Brimonidine, Timolol, and Brinzolamide** ophthalmic suspension for glaucoma management
- Smartlens** received a **\$6.1M** grant for developing **smart contact lens** for glaucoma detection
- Research team at **POSTECH** has developed a **smart contact lens** by combining an **IOP sensor** and a **flexible drug delivery system**
- Ciliotech** presented preliminary results of the second 2-year postoperative clinical trial (SAFARI II) on its **Cilioscleral Interposition Device (CID)** estimated to advance **microinvasive glaucoma surgery (MIGS)** domain
- Dr. Hu Yang**, a **Missouri S&T** professor was recently awarded the **NIH R01 grant** of **\$2.5 million** over the next five years for his **new glaucoma treatment**
- Altris AI** unveiled its **artificial intelligence platform** for automated **OCT scans** analysis

## Start-Up Ecosystem

- Myra Vision's nanotechnology-based device** allows the reduction of intraocular pressure for the treatment of moderate to severe glaucoma patients
- Sensimed AG**, has developed a unique non-invasive soft contact lens-based solution, the **SENSIMED Triggerfish**, with the aim of revolutionizing glaucoma management
- PinoTBio** has its **proprietary technology** that modifies and configures nucleoside analogs to develop targeted therapeutic agents for glaucoma
- Avisi Technologies** has a platform that develops an ultrathin nanoplate made of alumina implant material for treating mid to late-stage glaucoma

## Conclusions

- Early Detection Saves Sight:** Raising glaucoma awareness is crucial to prevent irreversible damage. Regular check-ups can safeguard vision and enhance millions of lives worldwide.
- Tech Breakthroughs Transforming Care:** AI, telemedicine, wearables, and nanotech are revolutionizing glaucoma diagnosis and treatment, offering hope for a brighter future.
- Economic and Personal Impact:** Addressing glaucoma early not only saves billions but also improves countless lives through better vision care.

## About FutureBridge

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