## TECHNOLOGY - MOBILE MEDICINE APPS

## Improving Compliance with Eye Drop Medications

## by Scott Pastor, MD & Tom Harbin MD

Numerous studies show frequent poor compliance to use of glaucoma eye drops. Since both of us, Drs. Pastor and Harbin, specialize in glaucome, we developed an app for eye drop users.

EyeDROPS is the first mobile app to remind patients when to take their eye medications, and will enhance compliance and adherence in those with glaucoma or any other chronic condition requiring the use of drops.

Utilizing pull-down menus, drop regimens are easily entered, and reminders will pop up whenever a drop is due (See Figure 1). Once a drop is taken, the exact time is recorded, and the app will automatically schedule the next time for that drop. Multiple drops and other eye medications can be entered and tracked (See Figure 2). The app demonstrates the correct way to administer a drop and reminds the patient of the need for eyelid closure and proper interval between drops (See Figures 3 & 4).

The basic free app, which gives reminders about drops and demonstrates correct administration, will also afford access to a dedicated website for information about glaucoma and links to other respected sites.

A premium version will be released, and for a nominal charge will offer a significantly enriched and more robust experience for patients. In addition to the basic app, it will include:

1. The ability to enter drop regimens for any family member.

2. The ability to track compliance for weeks/ months, as well as the opportunity to email this information to the treating doctor.

3. A database to enter a patient's prior laser and surgical interventions.

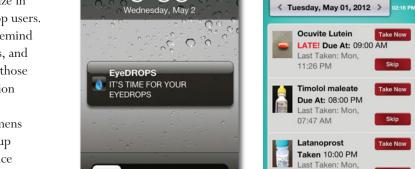
4. A catalog of all previously-used drops, and the reason for they were discontinued.

5. A record of Intraocular pressures, with the ability to view the IOP history as a continuous graph.

6. Text messages and emails to congratulate the patient for good adherence and encourage better adherence when necessary. These messages can be configured with participating ophthalmologist's signatures.

The app is available on both Apple and Android devices and soon will be on the Windows and Blackberry platforms as well.

Tom Harbin, MD, is Co-developer EyeDROPS, the eye drop reminder app/Eye Consultants of Atlanta. Contact: tomharbin@harbinbooks.com MM



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Figures 1 & 2

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Figures 3 & 4