ASSESSING Cataract Patient Understanding of Proper Eye-Drop Instillation in Chennai, India
Cataracts are the leading cause of blindness worldwide.

Over 15 million residents of India are blind.

Of the cases in India, which account for nearly HALF of the world’s blind, 75% are considered to be preventable blindness.
DRUG ADHERENCE IN EYE DISEASE

- Major concern in post-operative prevention of infection
- Effectiveness determined by proper use; this includes correct technique and scheduled dosing
Can we gauge how well the cataract patient understood the regimen they were just prescribed?

If so, what are the underlying socio-demographic determinants of the patient’s level of understanding?
METHODS

- Dates: 18 July and 8 August 2016
- Sample: 50 pre-operative cataract patients recruited from outreach camps for vision screening
- Socio-demographic factors: age, gender, education, residence (urban/rural), poverty score, administration (self/other), previous use
1. For how many weeks should you be using eye-drops after your operation? Answer: 4
2. How many times a day should you use eye-drops during the first week after your operation? Answer: 6
3. How many times a day should you use eye-drops during the second week after your operation? Answer: 4
4. How many times a day should you use eye-drops during the third week after your operation? Answer: 3
5. How many times a day should you use eye-drops during the fourth week after your operation? Answer: 2
6. How many drops should be used each time? Answer: 1
7. Why are eye-drops necessary? Answer: To prevent infection
8. Can you show me how you would use your eye-drops?
Mean knowledge test scores for self-use were lower than those for instillation by another (self-use: 4.6, instillation by other: 5.9, \( P=0.05 \)).

Self-administration was associated with greater odds of having a below average (< 5.5) knowledge test score (OR: 4.18, 95% CI: 1.18, 14.82, \( P=0.03 \)).

31% of self-administrators incorrectly used the drops while 9% of those with another administrator instilled incorrectly.

Study participants most frequently (62%) answered incorrectly the knowledge test question asking the reason for using post-operative eye-drops.
Identification of this socio-demographic risk factor is useful for targeted patient education that can be introduced in office to diminish risk.

Patient care implications: cataract patients who plan to administer their own eye-drops should be monitored for proper instillation of their prescribed ocular regimen. This will ensure greater drug efficacy and adherence.
CONCLUSION

- Self-administration was found to be a determinant of lower levels of understanding of proper eye-drops instillation.
- Most patients did not understand that eye-drops are to prevent post-operative infection. The role of the drug needs to be emphasized as awareness of it leads to greater adherence.
ACKNOWLEDGEMENTS

1 NATAN KAHAAN, RPH, MHA, PHD
2 CONNOR ORRICO
3 TAMILARASAN SENTHIL, MBBS, DO, FICO
4 NAINAPPAN MALATHI, MBBS, MS