

ASSESSING CATARACT PATIENT UNDERSTANDING OF PROPER EYE-DROP INSTILLATION IN CHENNAI, INDIA

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PREVENTABLE BLINDNESS

- 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?

RESEARCH
QUESTIONS

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



KNOWLEDGE TEST

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?

RESULTS

- 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.

DISCUSSION

- 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.

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