

# Pro vs. con of transzonular injection of antibiotics, steroids at time of cataract surgery

Ocular Surgery News U.S. Edition, August 25, 2016  
*Cynthia Matossian, MD, FACS; Audrey Talley Rostov, MD*

Endophthalmitis prophylaxis has always been a concern around cataract surgery. Unfortunately, patient compliance with postoperative drops may be a contributor to this dreaded infection. This month, **Cynthia Matossian, MD, FACS**, and **Audrey Talley Rostov, MD**, discuss two techniques for endophthalmitis prophylaxis, transzonular and intracameral instillation of antibiotics during cataract surgery. We hope you enjoy the discussion.

Kenneth A. Beckman, MD, FACS  
OSN CEDARS/ASPENS Debates Editor

## Transzonular approach

Compliance with prescribed medication regimens by most patients is a big problem. In fact, according to a recent anonymous survey among the CEDARS/ASPENS membership, 83.3% agreed that compliance with topical medications in the postoperative period poses issues for cataract patients.

As a result, many eye surgeons and pharmaceutical companies are trying hard to come up with alternative drug delivery methods or devices. One such approach by Imprimis, coined “dropless surgery,” is the use of a proprietary antibiotic and steroid mixture transzonularly during cataract surgery to eliminate or decrease the need for topical medications postoperatively. Thirty-two percent of the survey participants had tried this method, and 61% had not yet evaluated it. Some of the reasons provided for not having tried this transzonular approach to date included that they were in the process of currently evaluating this approach, saw no benefit because the patients still needed an NSAID topically, or may reserve this approach for patients who cannot afford topical medications or have physical impairments that make drop instillation a challenge.



**Cynthia  
Matossian**

Imprimis has two formulations available: triamcinolone with moxifloxacin, abbreviated as TriMoxi, and triamcinolone and moxifloxacin with vancomycin, abbreviated as TriMoxiVanc. The preference among the survey participants showed 70% for TriMoxi and 30% for TriMoxiVanc.

Just like any new technique, there is a learning curve for the transzonular delivery of this mixture into the anterior vitreous after IOL implantation but before irrigation-aspiration is started. Of the surgeons who use this approach, 15% said the learning curve was difficult, 31% moderately difficult and 39% easy. Several cannulas have been specifically designed to facilitate this step.

The many advantages of the transzonular approach over traditional postoperative topical drop administration include:

- Elimination of medication compliance issues.
- Lower cost for patients compared with buying prescribed medication bottles.
- Fewer pharmacy calls to the office tying up technician time and office lines.
- Decreased staff time requirements to address pre-certifications for branded medications.
- Easier for patients who have issues with manual dexterity, tremors, or other manual or neurological comorbidities that hinder drop instillation.
- Easier for patients who have dementia, Alzheimer's or other entities that render them forgetful.

I have been using this approach in select patients for more than a year. I find the technique easy to perform with the 27-gauge Rycroft cannula. I inform patients about floaters ahead of time and let them know that this technique may not eliminate all postoperative drops but will certainly decrease the number. My patients love it, my staff is very happy to not be inundated with pharmacy calls, and the family members, spouses or caregivers of the patients are elated not to have a confusing medication grid to follow for each eye.

**For more information:**

Cynthia Matossian, MD, FACS, is the founder of Matossian Eye Associates, with offices in Doylestown, PA, Hopewell, NJ, and Hamilton, NJ. She can be reached at email: [cmatossian@matossianeye.com](mailto:cmatossian@matossianeye.com).

Disclosure: Matossian reports she is neither a speaker nor a consultant to Imprimis but she is involved in a clinical study using the TriMoxi and TriMoxiVanc products.