

# Hypochlorous acid lid cleanser provides novel advantages

New product associated with excellent results, high patient acceptance in management of blepharitis

June 01, 2014

By [Cheryl Guttman Krader](#)

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A new hypochlorous acid lid cleanser is a safe and effective option for cleaning the lids, lashes, and periocular skin of debris and microorganisms.

By Cheryl Guttman Krader; Reviewed by Steven J. Lichtenstein, MD, and Kathryn Najafi-Tagol, MD

A novel eye-care product containing a stabilized form of pure hypochlorous acid (0.01%) in saline (Advanced i-Lid Cleanser, NovaBay) offers a safe and effective alternative for cleansing the lids, lashes, and periocular skin of debris and microorganisms, which can cause irritation, inflammation, and ocular surface disease.

Hypochlorous acid is a bactericidal component of the innate immune system. Incorporation into a commercial product required engineering a formulation that would maintain the stability of the acid and avoid other impurities.

**Results from laboratory studies evaluating the stabilized hypochlorous acid show it has fast-acting, broad-spectrum activity against microorganisms found in the external ocular flora, including methicillin-resistant *Staphylococcus aureus*, plus the ability to disrupt biofilm that harbors bacteria. Laboratory testing has also established that the product is non-toxic to human tissues and non-irritating.**



## Merits of hypochlorous acid cleanser

Kathryn Najafi-Tagol, MD, founder, Eye Institute of Marin, San Rafael, CA, has been involved in research evaluating the properties of hypochlorous acid. In clinical practice, she has found that when used in the management of blepharitis, the lid cleanser is associated with excellent results and high patient acceptance.



Dr. Najafi-Tagol “Blepharitis is a common problem seen by eye-care practitioners. It can have cosmetic, structural, and functional sequelae, and the availability of different options for use by affected patients is desirable,” Dr. Najafi-Tagol said. “Based on its unique characteristics, the hypochlorous acid cleanser is a welcome addition to our toolbox.

“In my experience, it is extremely helpful, and I appreciate that unlike topical antibiotics and steroids, it can be used safely on a regular, ongoing basis,” she said. “Furthermore, the hypochlorous acid cleanser is a simple and elegant formulation with reduced potential to cause skin irritation compared with other commercial lid cleansers containing buffering ingredients, surfactants, and preservatives. My patients have been very pleased with the product, enjoying not only its efficacy as a cleanser but also what many describe as a refreshing feeling.”

## Managing blepharitis

Steven J. Lichtenstein, MD, associate professor of clinical surgery and pediatrics, University of Illinois College of Medicine at Peoria and Chicago, and medical director of pediatric ophthalmology, Children's Hospital of Illinois, Peoria, said he first began recommending the hypochlorous acid cleanser for use by patients with blepharitis at the beginning of 2014, and the results achieved have been excellent.



Dr. Lichtenstein noted that his standard treatment for children with chronic blepharitis has been dilute baby shampoo lid scrubs combined with a topical antibiotic and a steroid as needed to control significant inflammation. With this regimen, however, he was always concerned about the development of bacterial resistance and steroid-related complications, especially considering the likelihood that parents might be initiating repeat treatment on their own using medication leftover from a previous prescription.

“The hypochlorous acid cleanser is not any harder or any easier to use than the dilute baby shampoo, but it seems to provide better results while eliminating or reducing the need for antibiotics and steroids along with their associated costs and concerns,” he said.

The cleanser is packaged in a spray top bottle and should be dispensed onto a cotton pad or cotton-tipped applicator that is then used to scrub along the lashes, lids, and as needed, the periocular skin.

Dr. Najafi-Tagol noted that she only suggests a cotton-tipped applicator when she is confident the patient will be able to use it safely and confirms her impression by asking patients to demonstrate their technique before they leave the office.

Both Dr. Najafi-Tagol and Dr. Lichtenstein said they have used the lid cleanser for the management of patients with both anterior and posterior blepharitis.

In patients with meibomian gland dysfunction (MGD), the lid cleanser is combined with other lid hygiene methods, such as warm compresses directed at relieving gland obstruction, Dr. Najafi-Tagol said.

“Using the lid cleanser to reduce the bacterial burden on the eyelids is useful in patients with MGD because the organisms produce exotoxins and lipases that can lead to the development of evaporative dry eye disease through their inflammatory properties and effects on the meibomian gland secretions,” she explained.

Dr. Lichtenstein said he recommends twice-daily use of the lid cleanser, in the morning and at bedtime. So far, it has been consistently effective, with resolution occurring in some patients within 2 weeks.

“I have not yet seen any child whose blepharitis has recurred after the successful use of this regimen incorporating the lid cleanser,” he said. “However, because of the safety of this product, I am comfortable telling parents that they can re-initiate its use if they notice returning signs of redness or debris.”

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Dr. Lichtenstein has no relevant financial interest to disclose.

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Dr. Najafi-Tagol is also a member of NovaBay’s Ophthalmic Advisory Board and serves as medical monitor for NovaBay’s conjunctivitis clinical trials.