

Enhancing the Management of **Red Eye**

How Clinical **Advancements**
Are **Evolving** Eye Care Practice

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Dear Colleagues,

For many years, we in eye care had few reliable options to offer patients in the area of ocular redness relief due to minor eye irritation—commonly from conjunctival inflammation leading to vasodilation of the conjunctival blood vessels.^{1,2} We knew that redness could be triggered by issues such as allergy, infection, dryness or fatigue,² in addition to prolonged visual tasking and contact lens wear,² and more recently digital eye strain³ and cosmetic lash treatments.^{4,5} But we often avoided bringing up redness during our conversations with patients unless it was severe since we weren't able to effectively manage the symptoms.

Over time, a percentage of our patients who were frustrated by their readily apparent red eyes went in search of over-the-counter medications such as topical vasoconstrictors marketed as eye redness relievers. However, these products potentially introduced unwanted side effects such as tachyphylaxis,⁶ rebound vasodilation,⁷ toxicity,⁸ and risk of over-use.⁸ As a result of these possible complications, many of us advised against using these products; yet, a number of our patients persisted in employing them, frequently leading to rebound redness, protracted application, and a repeated cycle of ocular redness.

Starting in 2017 with the introduction of an eye redness relieving eye drop, eye care providers were presented with a tremendous opportunity to advance clinical practice in an area of eye care critically in need of our attention. With the addition of LUMIFY® Redness Reliever eye drops to our management protocols, many of us began experiencing firsthand the giant leap forward this product has taken eye redness relief.

For one thing, science has borne out the product's safety and efficacy. Research has shown that the mechanism of action of LUMIFY® can safely and efficaciously address ocular redness. In clinical trials, there were no reported serious side effects such as intraocular pressure changes, allergic reaction, or pupil effects; no reports of tachyphylaxis, and few reports of rebound vasodilation.² Remarkably, it can do so within a minute of installation for up to eight hours.² In addition, the positive clinical effect LUMIFY® has had on so many of our patients has been nothing short of remarkable. We have observed during office demonstrations patients' eyes literally change from red with minor irritation, to clear and quiet in 60 seconds. Looking through a wider lens, we have seen the myriad ways a new offering in redness relief can elevate our patients' eye care experience, in addition to their confidence in us as practitioners.

LUMIFY® (brimonidine tartrate ophthalmic solution 0.025%) is the first and only over-the-counter eye drop developed with low-dose brimonidine tartrate for the treatment of ocular redness due to minor eye irritations. Its importance for eye care practice today should not be overlooked. In the following discussion, we explain reasons why optometric professionals who want to stay at the forefront of eye care developments need to take a closer look at implementing this essential product in their practices.

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Presentation & Treatment of Red Eye

Dr. Karpecki: *What are the more common causes of red eye that you see in your practice?*

Dr. Epstein: We are seeing patients who work longer hours and who are using their computers much more extensively. Patients are also presenting with a greater prevalence of dry eye symptoms, and they are using an increasing number of medications than in the past. In general, this is a time where we're seeing more and more redness, and more and more patient awareness of it as well.

Dr. Hauser: Working in a tertiary dry eye center, I see a lot of redness that is related to dry eye and other ocular surface disease—blepharitis, allergy, and so forth.

Dr. Brujic: Oftentimes, these patients are hyper-cognizant of the condition and how it makes their eye look.

When to Schedule Your Patient for More Serious Causes of Red Eye

By Paul M. Karpecki, OD, FAAO

It's important to recognize eye redness secondary to minor irritation. But many patients don't have the ability to distinguish a red eye caused by minor irritation that will do well with LUMIFY® Redness Reliever eye drops from one caused by more serious underlying conditions—such as infection, corneal ulcer, neurotrophic keratitis, acute angle closure—that needs to be addressed immediately and evaluated in an exam. Here is a partial list of symptoms that may help the practice determine if a red eye requires immediate attention and scheduling:

- Decreased or blurred vision
- Pain
- Photophobia
- Severe headache
- Halos around lights
- Nausea
- Discharge

Dr. Karpecki: *We're all very busy, and if the patient is not complaining about redness, a lot of times it gets overlooked. How do you approach your diagnosis when it comes to redness?*

Dr. Epstein: One of the things I like to do is, as I'm summing up a case and how I'm going to approach

Protocols for Causes of Redness Secondary to Minor Irritation

By Paul M. Karpecki, OD, FAAO

1. Redness secondary to meibomian gland dysfunction (MGD)/mild blepharitis. Four components typically must be addressed in patients with mild MGD/blepharitis: obstructed meibomian glands (MGs), biofilm, tear film, and redness. A clinician can control mild blepharitis with hydrating or moist compresses, blink exercises, lid hygiene and possibly omega-fatty acid supplements. LUMIFY® Redness Reliever eye drops can be used for residual eye redness.

2. Redness secondary to mild allergic conjunctivitis. Mild allergies are another common condition in North America and a common cause of eye irritation, itching, and redness. This condition requires treating the allergic conjunctivitis and redness, and supporting the tear film, as many topical and oral antihistamines cause eye dryness. Options for mild allergic conjunctivitis include cool compresses, topical antihistamine drops either over-the-counter or by prescription. Many of these therapeutic anti-histamine drops also stabilize mast cells. The tear film can be supported with preservative-free artificial tears. Residual eye redness can be managed with LUMIFY® Redness Reliever eye drops.

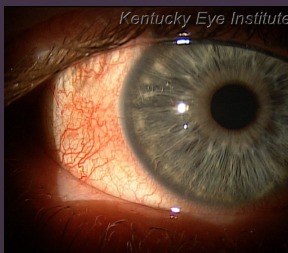
3. Mild or episodic dry eye. Mild or episodic, as opposed to chronic, dry eye causes temporary symptoms of dryness, burning, and irritation. Patients often experience symptoms later in the day, while in dry environments or after extensive digital device use. This condition requires treating the obstructed MGs, mild dry eye, the tear film, and redness. Treatments may include hydrating compresses, in-office lid debridement, microblepharoexfoliation, and thermal pulsation/expression procedures. The dry eye component can be treated with oral omega fatty acids, and topical dry eye therapies such as cyclosporine or lifitegrast. The tear film can be supported with artificial tears and environmental changes. Residual redness can be addressed with LUMIFY® Redness Reliever eye drops.

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Case: Red, Itchy Eyelids

By Paul M. Karpecki, OD, FAAO

A 54-year-old Caucasian male, computer programmer/manager for a telephone/internet company and longstanding daily-wear contact lens wearer presented with complaints of “red eyes,” and secondary complaints of “itchy, irritated, and gritty eyes.” His symptoms had persisted for more than two years, and the patient said he was self-conscious after hearing people talking about his red eyes. As a result, he hesitated to go out and socialize, and his wife and family often went out without him. The patient had tried numerous OTC drops marketed for conditions such as dry eye and allergy, and had seen two doctors previously, but with no improvement.



Exam findings revealed: BCVA: 20/20-2 OD and 20/25+2 OS (current Rx), with fluctuating vision during the test; IOP: 17/18mmHg; and osmolarity: 310/313mOsm/l. Slit lamp revealed: Grade 3 clear sleeves at base of lashes; Grade 2+ eyelid notching and irregularity; paste-like MG expression; and conjunctival injection grade 3 OU. Other evaluations revealed: TFBUT<3 seconds; partial blink>50% of the time; and incomplete eyelid closure noted on transillumination.

I diagnosed the patient as having *Demodex* blepharitis with classic clear sleeves at the base of the lashes; mild dry eye; mild—though elevated—osmolarity; limited MGD with a paste-like expression, and eyelids with marked telangiectasia.

Treatment was several-fold. For the dry eye disease, I had the patient continue artificial tears and discussed other therapeutic options. For the *Demodex* blepharitis, I did blepharoexfoliation in-office, and recommended tea tree lid scrubs for daily at-home use. For the MGD portion of dry eye, I recommended hydrating compresses, a thermal pulsation procedure, and discussed oral doxycycline vs. omega fatty acids. I also recommended the patient consider an intense pulsed light procedure and low light therapy. I would have been remiss as a clinician had I not addressed the patient's chief complaint of eye redness, so I added LUMIFY® Redness Reliever eye drops for occasional use.

At four-week follow-up, exams revealed: IOP: 18/17 mmHg; VA: 20/20-2 OD and 20/20-1 OS; and osmolarity: 308/306mOsm/l. The patient stated his vision was still blurry at times. However, the MGD had improved slightly on expression, the blepharitis and collarettes had improved significantly, and the conjunctival redness/injection had improved significantly to grade trace. The patient said any eyelid itching and irritation had diminished to the point that he no longer noticed it. His eye redness had improved dramatically, and the patient said his family and friends had taken notice.

it, I'll ask patients if redness bothers them. If they say yes, I tell them to go look in the mirror. Afterward, they usually say something like, 'My eyes are kind of red.' I hand them a tissue and put a drop of LUMIFY® Redness Reliever eye drops in each eye, and I continue with the conversation. After about a minute, I say, "Do me a favor, and go take a look at your eyes again." Most patients are amazed at how their eyes look because the redness has been reduced. At the same time, they look at me differently than they did before because now they have proof positive that I know what I'm doing.

Dr. Hauser: Now that I have another option to treat the patient's redness, it makes me open that discussion up more proactively. I think a lot

of doctors have a “don't ask, don't tell” policy when it comes to things like redness. They might identify it as part of their exam and put hyperemia in the chart, but they don't usually address it with patients. Now, I feel like I broach the subject a lot more with patients. And once you ask the question, once you talk to them about it, you realize what a high priority it is for them.

Dr. Brujic: I agree. I think redness was one of those conditions that we tried to ignore because we needed more options for it. So now that we have another option, and now that we can immediately show the patient the ramifications of that option, it's just created a whole new conversation with this patient.

Step Back from the Slit Lamp to Better Identify Redness

Dr. Hauser: One of the things I would recommend to colleagues is to look at your patient outside of the slit lamp. I think that we might identify redness better just in conversation, just like the patient's colleagues do, like their coworkers do. Because once you get behind the slit lamp, everything's magnified, and you're busy looking for superficial punctate keratopathy and corneal staining. And sometimes we just, I think, casually swing past the hyperemia there.

Dr. Epstein: It's funny because I always tell myself, 'Shut up, and listen to the patient.' But it's not just listening to the patient. It's looking at the patient. And I think that's almost an art form that has been lost over the years in terms of training new students. You get much more information from a patient just by that brief conversation, by looking at them, how they sit, how they walk, and looking at their eyes before you put them behind the slit lamp.

Dr. Karpecki: How does LUMIFY® Redness Reliever eye drops fit within the treatment regimen for dry eye-related conditions?

Dr. Hauser: With the chronic progressive nature of dry eye, we treat the dry eye disease with an appropriate product; however, one of the more lingering effects that the patient can have is hyperemia. We may see improvements in the cornea, we may see improvements in vision, but the patient may still have that little bit of lingering redness. And effective red eye relief has been the final thing that I have struggled to satisfy the patient with. So having something now that I can add on for that patient, that really is the icing on the cake.

Broaching the Subject of Redness Relievers With Patients

Dr. Karpecki: When asked about their current medications, many patients won't list topical over-the-counter products for ocular redness

Self-Treatment to Address a Pervasive Issue for Patients

Dr. Karpecki: A high percentage—9 out of 10 patients—report self-medicating at some point for ocular redness due to minor irritation.⁹ So we know that ocular redness is impacting our patients from an emotional standpoint if they are so motivated to self-treat.

Dr. Brujic: I think self-treating eye redness is a red flag to the profession. I think that speaks volumes about the degree that this affects patients.

Dr. Hauser: More than anything else, what I hear is that patients report that friends, family members, and coworkers identify it, and it's a point of embarrassment for them.

Dr. Karpecki: And their identification with [redness], unfortunately, in their minds, in their coworkers', their families' [minds] is: Have they been crying, which is negative; have they been not sleeping, which is negative; have they been drinking, binging; going out too long, late at night?

Dr. Epstein: One female patient with eye redness told me she thought she looked like a vampire. So I clarified, "You're here specifically because your eyes are red, and is that a big issue?" She said, "Yeah, it literally dominates my whole life."

Dr. Brujic: That single statistic of patients' self-medicating highlights how important it is in patients' minds. So if we're not offering them options, what's happening is many of them are going and trying to figure out what the best solution is.

Dr. Epstein: Patients are finding ways of dealing with a problem that you're ignoring, and you're an eye doctor, and it's an eye problem.

Dr. Hauser: Many patients think red eye is frivolous to us, so they're not necessarily going to be the ones to bring that to our attention. As a profession, we have to be proactive.

because, one, they are over-the-counter, and two, patients think 'it's just a redness reliever.' At the same time, many of our colleagues will not address redness if the patient isn't complaining, as a number of us tended to do before LUMIFY® Redness Reliever eye drops were available. How do you bring up eye redness?

Dr. Brujic: I was guilty of this a few years ago—I

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