OPTOMETRIC Management
APRIL 2020

READING THE DRY EYE ROADMAP

Strategies for incorporating dry eye management into your practice

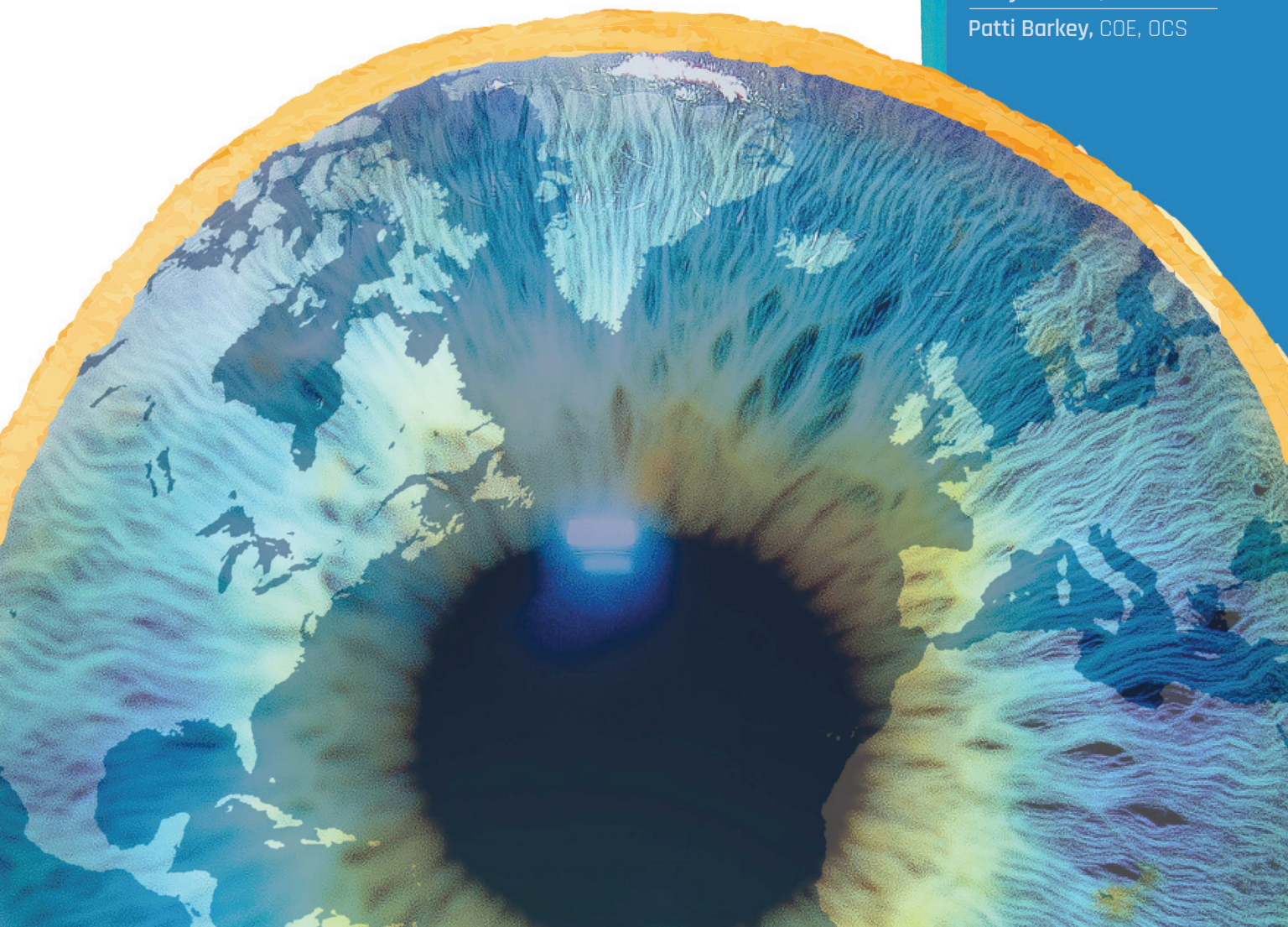
Highlights from a roundtable at our

15th Annual *Optometric Management* Symposium

at Disney's Yacht & Beach Club in Orlando, Fla.

FEATURING

Whitney Hauser, O.D.
Scott E. Schachter, O.D.
Marc Bloomenstein, O.D.
Jerry Robben, O.D.
Patti Barkey, COE, OCS



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CEQUA™ (cyclosporine ophthalmic solution) 0.09% is a calcineurin inhibitor immunosuppressant indicated to increase tear production in patients with keratoconjunctivitis sicca (dry eye).

IMPORTANT SAFETY INFORMATION

WARNINGS AND PRECAUTIONS

Potential for Eye Injury and Contamination: To avoid the potential for eye injury and contamination, advise patients not to touch the vial tip to the eye or other surfaces.

Use with Contact Lenses: CEQUA should not be administered while wearing contact lenses. If contact lenses are worn, they should be removed prior to administration of the solution. Lenses may be reinserted 15 minutes following administration of CEQUA ophthalmic solution.

ADVERSE REACTIONS

The most common adverse reactions reported in greater than 5% of patients were pain on instillation of drops (22%) and conjunctival hyperemia (6%). Other adverse reactions reported in 1% to 5% of patients were blepharitis, eye irritation, headache, and urinary tract infection.

Please see brief summary of Full Prescribing Information on the adjacent page.

References: 1. CEQUA [package insert]. Cranbury, NJ: Sun Pharmaceutical Industries, Inc.; 2018. **2.** Data on file. Cranbury, NJ: Sun Pharmaceutical Industries, Inc. **3.** US Patent 9,937,225 B2. **4.** Tauber J, Schechter BA, Bacharach J, et al. A Phase II/III, randomized, double-masked, vehicle-controlled, dose-ranging study of the safety and efficacy of OTX-101 in the treatment of dry eye disease. *Clin Ophthalmol.* 2018;12:1921-1929.

PM-US-CQA-0327 10/2019

SUN OPHTHALMICS

Brief Summary of Prescribing Information for CEQUA™ (cyclosporine ophthalmic solution) 0.09%, for topical ophthalmic use

CEQUA™ (cyclosporine ophthalmic solution) 0.09%
See package insert for Full Prescribing Information.

INDICATIONS AND USAGE

CEQUA ophthalmic solution is a calcineurin inhibitor immunosuppressant indicated to increase tear production in patients with keratoconjunctivitis sicca (dry eye).

CONTRAINDICATIONS

None.

WARNINGS AND PRECAUTIONS

Potential for Eye Injury and Contamination

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Use with Contact Lenses

CEQUA should not be administered while wearing contact lenses. If contact lenses are worn, they should be removed prior to administration of the solution. Lenses may be reinserted 15 minutes following administration of CEQUA ophthalmic solution.

ADVERSE REACTIONS

Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

In clinical trials, 769 patients received at least 1 dose of cyclosporine ophthalmic solution. The majority of the treated patients were female (83%).

The most common adverse reactions reported in greater than 5% of patients were pain on instillation of drops (22%) and conjunctival hyperemia (6%). Other adverse reactions reported in 1% to 5% of patients were blepharitis, eye irritation, headache, and urinary tract infection.

USE IN SPECIFIC POPULATIONS

Pregnancy

Risk Summary

There are no adequate and well-controlled studies of CEQUA administration in pregnant women to inform a drug-associated risk. Oral administration of cyclosporine to pregnant rats or rabbits did not produce teratogenicity at clinically relevant doses.

Data

Animal Data

Oral administration of cyclosporine oral solution (USP) to pregnant rats or rabbits was teratogenic at maternally toxic doses of 30 mg/kg/day in rats and 100 mg/kg/day in rabbits, as indicated by increased pre- and postnatal mortality, reduced fetal weight, and skeletal retardations. These doses (normalized to body weight) were approximately 3200 and 21,000 times higher than the maximum recommended human ophthalmic dose (MRHOD) of 1.5 mcg/kg/day, respectively. No adverse embryofetal effects were observed in rats or rabbits receiving cyclosporine during organogenesis at oral doses up to 17 mg/kg/day or 30 mg/kg/day, respectively (approximately 1800 and 6400 times higher than the MRHOD, respectively).

An oral dose of 45 mg/kg/day cyclosporine (approximately 4800 times higher than MRHOD) administered to rats from Day 15 of pregnancy until Day 21 postpartum produced maternal toxicity and an increase in postnatal mortality in offspring. No adverse effects in dams or offspring were observed at oral doses up to 15 mg/kg/day (approximately 1600 times greater than the MRHOD).

Lactation

Risk Summary

Cyclosporine blood concentrations are low following topical ocular administration of CEQUA. There is no information regarding the presence of cyclosporine in human milk following topical administration or on the effects of CEQUA on breastfed infants and milk production. Administration of oral cyclosporine to rats during lactation did not produce adverse effects in offspring at clinically relevant doses. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for CEQUA and any potential adverse effects on the breastfed child from cyclosporine.

Pediatric Use

The safety and efficacy of CEQUA ophthalmic solution have not been established in pediatric patients below the age of 18.

Geriatric Use

No overall differences in safety or effectiveness have been observed between elderly and younger adult patients.

PATIENT COUNSELING INFORMATION

Handling the Vial

Advise patients to not allow the tip of the vial to touch the eye or any surface, as this may contaminate the solution. Advise patients also not to touch the vial tip to their eye to avoid the potential for injury to the eye.

Use with Contact Lenses

CEQUA should not be administered while wearing contact lenses. Patients with decreased tear production typically should not wear contact lenses. Advise patients that if contact lenses are worn, they should be removed prior to the administration of the solution. Lenses may be reinserted 15 minutes following administration of CEQUA ophthalmic solution.

Administration

Advise patients that the solution from one individual single-use vial is to be used immediately after opening for administration to one or both eyes, and the remaining contents should be discarded immediately after administration.

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PLR-00020 2018

SUN OPHTHALMICS

READING THE DRY EYE ROADMAP

Strategies for incorporating dry eye management into your practice

FACULTY

Whitney Hauser, O.D.
(Moderator)
Director of Clinical Affairs, Keplr Vision; founder, Dry Eye Coach, Memphis, Tenn.

Scott E. Schachter, O.D.
(Moderator)
Advanced Eye Care; founder, Ocular Surface Academy, Pismo Beach, Calif.; Vision Source Administrator

Marc Bloomenstein, O.D.
Schwartz Laser Eye Center, Phoenix, Ariz.

Jerry Robben, O.D.
Chief optometrist, Bowden Eye & Associates, Jacksonville, Fla.; founding partner at Dry Eye University and Dry Eye Access

Patti Barkey, COE, OCS
Dry Eye University CEO; director, Bowden Eye and Associates, Jacksonville, Fla.; Dry Eye Access, ASOA VP-elect

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OPTOMETRIC Management

EXECUTIVE VICE PRESIDENT & CO-PUBLISHER, *OPTOMETRIC MANAGEMENT*
Roger Zimmer • roger.zimmer@pentavisionmedia.com
Mark Durrick • mark.durrick@pentavisionmedia.com

SPECIAL PROJECTS
DIRECTOR **Alicia Isenberg**
MANAGER **Susan Tarrant**
EDITOR **Courtney Tychinski**

DESIGN & PRODUCTION
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PENTAVISION LIVE!
DIRECTOR **Abigail Markward**
abby.markward@pentavisionmedia.com • 949-441-7549

PENTAVISION, LLC
PRESIDENT & MANAGER **Thomas J. Wilson**

EDITORIAL AND PRODUCTION OFFICES
321 Norristown Road, Suite 150
Ambler, PA 19002 • 215-628-6550

SALES
Jacqui DiBianca
jacqui.dibianca@pentavisionmedia.com • 610-662-9735
Cheryl Brown
cheryl.brown@pentavisionmedia.com • 215-628-6543
Stephen Pronesti
stephen.pronesti@pentavisionmedia.com • 267-492-5211
Molly Bleil
molly.bleil@pentavisionmedia.com • 215-628-7748
Samantha Tuttle
samantha.tuttle@pentavisiomedia.com • 215-888-4436

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READING THE DRY EYE ROADMAP

Strategies for incorporating dry eye management into your practice

FIVE EXPERTS IN THE FIELD OF DRY EYE CAME TOGETHER AT THE *Optometric Management* Symposium for a roundtable discussion on current treatment paths for dry eye, and how optometrists can incorporate dry eye management into their practices. What follows is a breakdown of the discussions on strategies and best practices for adding dry eye expertise to your practice.

AN UNDERTREATED CONDITION

Scott E. Schachter, O.D.: Dry eye is a widely underdiagnosed and undertreated condition. When we embrace it, we're seizing the opportunity to make our patients happier and our practices happier as well. Why do you think dry eye is not thoroughly treated in every practice? What do you hear from other doctors?

Patti Barkey, COE, OCS: As an administrator, it's always interesting to me to hear doctors say that caring for dry eye takes up too much time in the clinic. Patients have symptoms and signs, and they need to be treated. If providing care that the patient seeks takes too much time, we just need to learn to be more efficient.

Marc Bloomenstein, O.D.: I think it boils down to a feeling of, "If patients aren't complaining about it, then I'm not going to treat it." Doctors and staff ask patients, "Do you have dry eye symptoms?" and if patients say "No," then they just take that at face value. But this is not a disease that our patients are going to diagnose for themselves. We need to diagnose it, educate them, and give them treatment options. There needs to be a sea change in the profession. It's our responsibility—not our patients'—to diagnose dry eye.

Jerry Robben, O.D.: I think there are two big problems: 1) doctors don't truly understand dry eye, and 2) they don't have the efficiency to treat it. But my greatest pet peeve is when I hear optometrists say dry eye is not real. In this day and age, with all the research that has been published in nearly every journal, I would hope that most doctors would understand that dry eye is real. And if they know it's real, then they must understand that it's time to recognize it, embrace it, and get on board with treating it.

Dr. Bloomenstein: My own pet peeve is the term "dry eye," which I think we need to abandon in favor of something more accurate, such as ocular surface disease or dysfunctional tears. When we talk to patients about "dry eye," many of them think of dry, scaly, flaky, or itchy skin. They think they don't have dry eye if they don't have those symptoms, or if their eyes are tearing all the time, they must not have dry eye. When I tell patients that we need to monitor and treat ocular surface disease, they don't have preconceptions about the term and they're receptive to learning.

Dr. Robben: I think the cow's already out of the barn as far as calling it "dry eye." It gets back to what you said about placing the onus for diagnosis on ourselves, not on patients. I tell patients, "You have dry eye disease." They might say, "How can that be? They're always wet." I educate them about what this disease truly is and how we'll treat it. I say, "I know it doesn't make much sense, but it's a biochemistry disease of your tears. Here's why it's called dry eye disease, and here's why we know you have it."

Dr. Schachter: I use the term "awareness" quite a bit. "How 'aware' are you of your eyes? Do you feel your eyes? You really shouldn't, so if they're dry, watering, burning, or otherwise creating an awareness of your eyes that shouldn't exist, you may have dry eye."

Whitney Hauser, O.D.: Statistics about the prevalence of dry eye are staggering. There are 30 million people with symptomatic dry eye disease in the U.S., but only 16 million are diagnosed.[1] I think that a lot of practitioners may not be aware of the numbers, and we really need to know those numbers to understand how often those patients are in our practice.

When I consult, I ask colleagues, "How much dry eye are you seeing?" Some say, "I don't really see it that often—maybe a couple of times a week." I shake my head. They're not looking. And maybe they're overlooking it because they don't want to open Pandora's box.

They have a waiting room full of people, and they're trying to get through the day. They don't want to hit the brakes in terms of efficiency because of dry eye disease, or in fact to develop an efficient means of dealing with dry eye.

What could make a difference in those practices? Would a greater awareness of the dry eye risk factors help optometrists

detect it more easily? Dry eye is a multifactorial condition in terms of the anatomy and physiology, but we see common threads in the environment, digital device use, cosmetics, and so forth.

Dr. Bloomenstein: In the last 10 years, screen use has caused a seismic shift in the number of patients complaining about eye fatigue, blurry vision after work, or glare. In the past, our mindset was to view dry eye as a disease for older people, primarily women. Now the reality is that dry eye exists in younger and younger patients, regardless of gender. For every patient who sits in your chair, you have to prove that the tear quality is where it should be. I think digital device use is our easy segue and talking point with patients.

Dr. Schachter: Medication risk factors fit that younger demographic as well. Birth control pills, antihistamines, and antidepressants are common in younger patients.

Dr. Hauser: Perhaps the financial benefits could encourage more practitioners to treat dry eye as well. We're all facing threats in terms of decreasing reimbursement from vision plans and competition from online retailers. Dry eye presents an opportunity to maximize how we treat existing patients in our practices, which is cheaper than bringing in new patients. And dry eye treatment then allows us to attract those new patients, as everyone here can attest. Patients are online, looking for new treatments and new doctors. They do their homework more than any other patient base. If you treat dry eye, and if you promote new therapies such as TearCare (Sight Sciences) and cyclosporine 0.09% (CEQUA, Sun Ophthalmics), they'll find you.

Dr. Robben: If you want to see the impact of this disease, look at the dry eye support groups on Facebook. People are pleading for help. There's mass confusion. It's clear that people are not getting the right message about this disease and they need help.

DRY EYE EDUCATION AND MESSAGING STRATEGIES

Dr. Hauser: We acknowledge the prevalence of dry eye and the fact that it's common in every practice. But how do we take what we know and relay that to our staff and our patients? How do we educate everyone in our practices?

Ms. Barkey: At Dry Eye University, we teach the concept of the whole practice's understanding of dry eye, from the person who answers the phone to the eyecare provider. You can't do it alone. You won't do it alone. Educate everyone. Take your contact lens tech who's training insertion and removal, and teach that person how to counsel patients about dry eye. Teach staff members about the available therapies and products. Let them help educate your patients. Update your website with the treatment modalities that you offer.

> "IN THE PAST, OUR MINDSET WAS TO VIEW DRY EYE AS A DISEASE FOR OLDER PEOPLE, PRIMARILY WOMEN. NOW THE REALITY IS THAT DRY EYE EXISTS IN YOUNGER AND YOUNGER PATIENTS, REGARDLESS OF GENDER."
> —Marc Bloomenstein, O.D.

Dr. Robben: That helps address the barrier of efficiency that colleagues complain about. By delegating and sharing the dry eye load with staff, we can keep moving while patients get the time they need to learn about dry eye with staff instead of in the exam lane.

Dr. Hauser: In my experience, patients have a different dialogue about dry eye with staff members. With other eye problems, patients often don't share much with my staff, and my staff will tell me, "He didn't tell me that." With dry eye, it's just the opposite. Patients really open up and tell staff what they've been going through, but they might be reluctant to tell the doctor. I think the emotional component of dry eye is the reason.

Dr. Robben: Those patients should hear the same message at every step, from the workup tech to the doctor, then back to the counselor. We use the same terminology and discuss the same treatment plan and follow-up schedule. Repetition helps impress upon them that this is an important, concrete problem that we're well-prepared to address.

Dr. Bloomenstein: Added to that, staff can also help us diagnose dry eye by performing pretesting. If you have staff members doing autorefraction, topography, retinoscopy, dry eye point-of-care testing, and so on, then you'll get a lot of information about the ocular surface before you even see the patient. For example, my staff knows that they must inform me if they needed to use drops to get a good topography or other testing, because it alerts me that dry eye is likely.

Dr. Hauser: We see that all the time. Patients occlude one eye and begin to read the smallest line on the chart, and if they pause halfway through the line, we tell them to blink. Now they can finish the line. We write the acuity in our chart and move on.

But what we need to see is, "This patient can't maintain adequate tear film and vision for the time it takes to get through a single line of letters. That's a problem." This is what happens to patients all day as they sit at their computers, constantly blinking their eyes to read. When patients can't get through a test without blinking or getting drops, that alone tells us their tears are breaking up too quickly.

Ms. Barkey: Imagine sending an untreated dry eye disease patient to a cataract surgeon, and the tech has to use eye drops to get clear A-scans, but never even documents it. When the patient suddenly has extensive dry eye symptoms after surgery, it's because the problem was

missed at every step along the way.

Dr. Hauser: I think everyone here agrees that we need to build a dry eye team in our practices. I could not do what I do for dry eye disease nearly as well, as efficiently, or as thoroughly without my staff. Together, we've had great success.

A PLETHORA OF TREATMENT THERAPIES

Dr. Hauser: Years ago, we had very few diagnostic tools for dry eye and not many treatments. Today, we have a lot of options—not just tears, a single ophthalmic medication, or punctal plugs, but a plethora of therapies. There is no longer any reason not to jump into dry eye treatment. There are so many different options.

Dr. Bloomenstein: It can seem overwhelming for people who don't do this every day, but it's great to have options. It's like going to a big buffet—just start with what's simple and comfortable, and you can always expand from there.

Dr. Robben: Multifactorial conditions require multifactorial solutions, but we can't just throw all the treatment options at patients and hope for the best. That's really not the right approach. We need to familiarize ourselves with all the different tools and learn how to put them together in a way that's right for each individual patient. For someone with meibomian gland dysfunction (MGD), that plan might include high-quality artificial tears, a clinically validated omega supplement with GLA such as HydroEye (ScienceBased Health), prescription drops, and heat-based therapy to thin the meibum.

Dr. Schachter: I start by using the SPEED questionnaire to determine symptoms. We need to be able to track the effectiveness of our treatment plan, and SPEED is both reliable and fast to score. Next, I look at tear quantity, tear quality, and anatomy, and then perform the slit lamp exam, including a phenol red thread test. You don't need to do all of these things necessarily, but they can be very useful.

Ms. Barkey: These are metrics, too. If you document baseline SPEED scores and tear osmolarity numbers, for example, then as you go through the treatment process, you know if it's working. If you get the patient's ocular surface under control, and then the SPEED score gets high again down the road, you know that treatment wasn't enough, or the patient has fallen out of compliance. You need to improve compliance or add another therapy to stabilize the patient's metrics and comfort.

Dr. Hauser: And patients like numbers. They like to follow their scores.

Dr. Bloomenstein: I think MGD is a good jumping off point for diagnosis. Many of us express the glands for every single patient. We've seen the patient's questionnaire, we're sitting in behind the slit lamp, and we push on the meibomian glands. MGD affects 86% of patients with dry eye,[2] so it's common to see thick meibum rather than something that looks like oil. That's when we need to ask ourselves, "What can I do to help this patient?" And we have a range of heated therapies for MGD that we can include in the treatment plan.

> **"IMAGING THE GLANDS FALLS INTO A MEDICAL WORKUP. DURING A VISION EXAM, WE CAN SIMPLY PRESS ON THE GLANDS, SEE OBSTRUCTION, AND THEN BRING THE PATIENT BACK FOR A MEDICAL WORKUP. THAT'S HOW YOU BUILD YOUR DRY EYE PRACTICE RIGHT THERE."**
>
> —Jerry Robben, O.D.

Dr. Hauser: When I was an associate professor at Southern College of Optometry, I had the opportunity to follow students through anterior segment exams. Students learned about the anterior segment on young, healthy patients. They did the slit lamp exam, looked at lids and lashes, and the first thing they said was, "Clean and clear." They were actually timed, too, so it was very quick. I'd watch the same students carry that process forward into the exam on real patients of any age or health status, and they entirely overlooked MGD. If they did digital expression, they barely even pushed, and it requires significant pressure to express those glands and learn whether the meibum is healthy.

Dr. Robben: I think imaging the glands falls into a medical workup. During a vision exam, we can simply press on the glands, see obstruction, and then bring the patient back for a medical workup. That's how you build your dry eye practice right there.

Dr. Hauser: When you talk to doctors about glaucoma, they have a clear protocol, but with dry eye, they say, "I don't have a plan for seeing them back." Sometimes dry eye disease is documented in the chart, artificial tears are handed out, and the patient isn't scheduled to come back for a year. It's so important to develop an evidence-based practice plan for dry eye, not just fly by the seat of our pants.

So let's talk about protocols. Many good ones exist. Some look too complex or time-consuming to me, and I know that's what puts off some of our colleagues. I think, "I can't actually do this in clinical practice. It's going to be too inefficient. I don't have all the tools." However, we can take some things from those protocols that are clinically feasible.

Dr. Robben: Yes, there are algorithms out there, so we don't need to make up our own. Someone posted on the ODs on Facebook page about a 32-year-old post-LASIK patient. The doctor had tried punctual plugs and artificial tears and was exasperated to see no improvement. "What should I do next?" Folks responded, recommending amniotic membrane or autologous serum, which are advanced options and might be good choices, but not in every case.

Posting to Facebook is not an algorithm.

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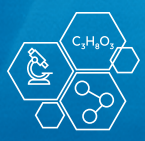

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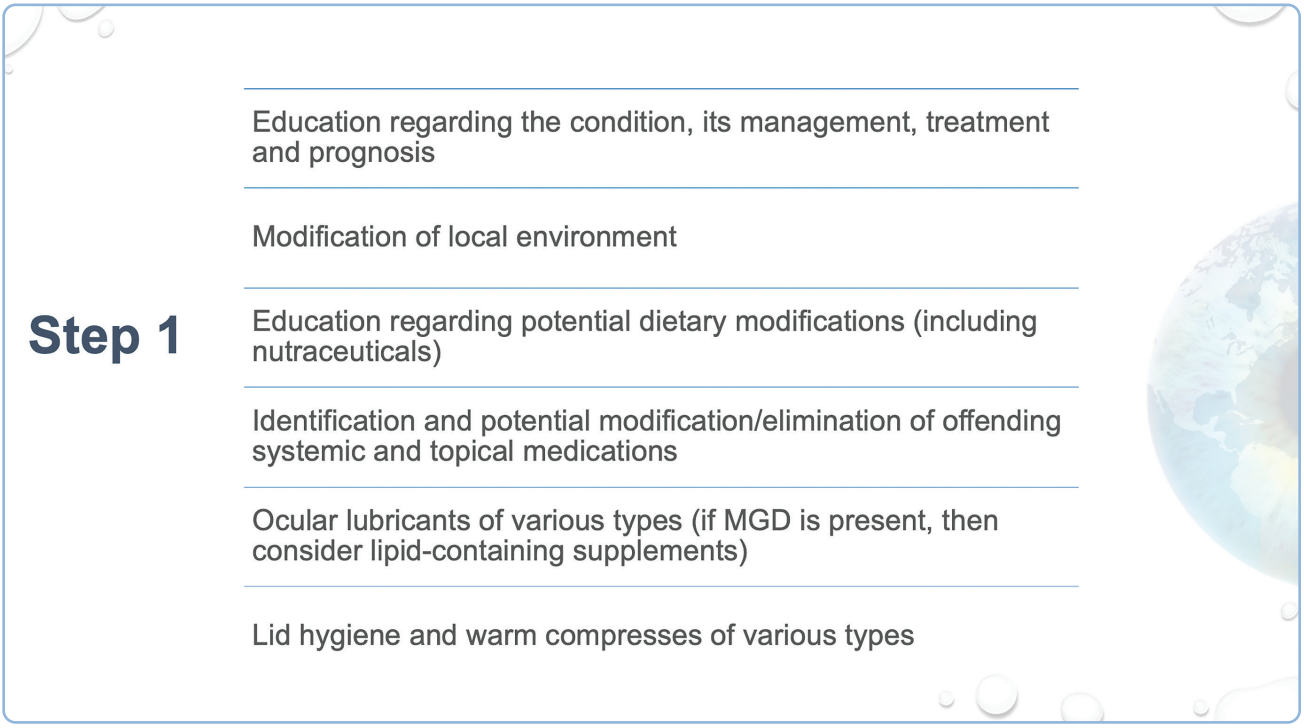

FIGURE 1. Once a dry eye patient is identified, begin the process of educating them about the disease before initiating treatment.

People need to know that a stepwise approach to treatment has already been established by an international consensus in DEWS II.[3] It's a retrospective study by 150 O.D.s, M.D.s, and PhD.s who looked at the validity of dry eye studies and arrived at a set of recommendations. I think it's a good framework. The information is readily available on tearfilm.org.

When I have patients with signs and symptoms of dry eye, I ask, "What have you tried? Tears? Lubricants? Compresses? Lifestyle modifications? If not, let's start today. I'll see you back to determine whether it's working; if it's not, we'll move on to other options." It's important to schedule them back in 2 or 3 weeks and not just say, "Come back if you're not any better."

Ms. Barkey: I think a critical part of your approach is saying, "Let's start today." If you don't embrace patients that day, they won't feel from you that dry eye is important, and they may not come back for the medical visit. They will, though, at some point end up seeking care elsewhere.

Dr. Bloomenstein: Once you've identified somebody with dry eye on a vision exam, you can start Step 1 and bring them back quickly (Figure 1). At the second visit, you can do a more complete medical evaluation, collect more metrics, and start more complete medical treatment, such as prescribing a dry eye medication like cyclosporine.

Dr. Robben: It's also time to discuss the effects of screen time and the need to take regular breaks.

Dr. Bloomenstein: Yes. I say, "You're looking at a monitor all day. You need to take breaks." Some patients look shocked because they want to be productive at work. I don't mean long breaks—just the 20/20/20 rule: Every 20 minutes, look 20 feet away for 20 seconds. I also tell them to blink. I don't like to restrict screen time or change people's habits. I just want to help them do what they want in a healthier way.

Dr. Schachter: I had a 10-year-old patient whose eyes were starting to bother him after 6 hours of gaming. All those partial blinks lead to all kinds of problems. He said, "Mom, I need help." So sometimes we have to modify parenting a bit as well.

Dr. Schachter: What about asymptomatic dry eye? When I started looking for dry eye and I discovered that a lot of patients with signs were asymptomatic, I asked Dr. Kelly Nichols, "Do you treat signs or symptoms?" She said, "I treat both, but I think there's no such thing as an asymptomatic dry patient. I think you're just asking the wrong questions." That's why I'm a fan of a validated questionnaire. When we started to use SPEED in my practice, it was a game-changer. My threshold is 6. If a patient scores a 6 or higher on SPEED, then I do a workup.

Dr. Robben: We need to find dry eye early. We don't want to wait until patients are out of control, because then we're beyond Step 2 treatment. If there aren't symptoms, we treat the signs. A patient with a low SPEED score might have MGD or staining, and we're not going to ignore that.

Dr. Barkey: Dry eye is often an incidental finding within a traditional comprehensive exam. Not all of these patients will return for the dry eye workup, and

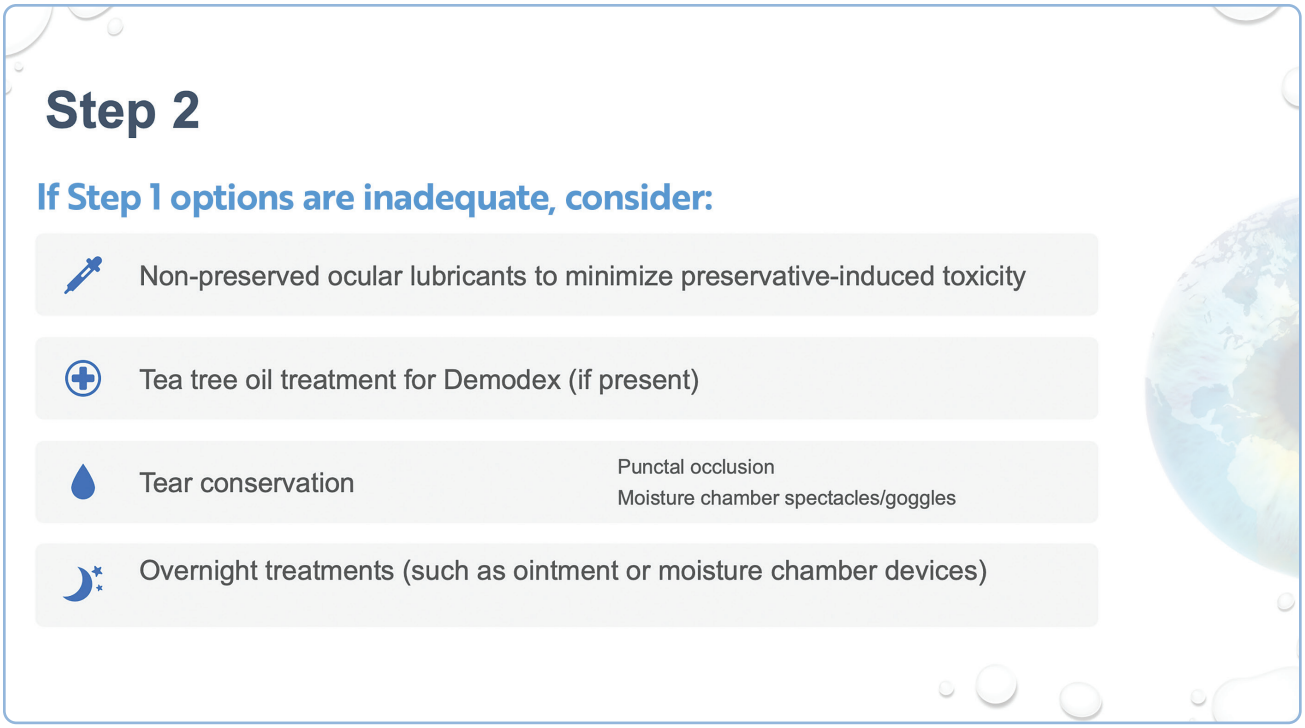

FIGURE 2A. If the treatments of Step 1 are inadequate, there are myriad treatment options still to consider. See page 12 for more.

that's okay. It's not now or never. We must keep that in mind. In optometry, a lot of doctors get turned off when patients don't follow instructions and return as appointed. We just must be open-minded. Don't stop ordering care for the next patient because the last few patients didn't return for that visit. I think giving a consistent presentation is important, and you make changes to your presentation based on the patient reaction. Learning to read your patient isn't new.

Dr. Robben: I think that comes from having the conviction that you're following the science. You're talking about an evidence-based protocol. I say, "If you were my family member and I saw this problem, this is what I would recommend." I think that conviction and confidence are what brings patients back. Be the doctor. Be in charge. Practice on your toes, not on your heels. Your exam room is your domain. Why do they come to you? For your expert opinion.

Dr. Barkey: Treat them all the same, too. Don't pick and choose and judge your patients. Treat them all the same based on what you see. Learn how to have financial discussions. A lot of what you do in dry eye is cash-based. Don't feel guilty about that. Set your prices and charge those prices, because the patients will pay. But if you're hesitant and you say, "Maybe you should do this, but you'd have to pay for it," patients aren't going to do it. If someone has a broken arm, they need an x-ray and a cast. Those things aren't optional. Patients with dry eye have an ongoing disease process, and treatment isn't optional.

Dr. Robben: Dry eye clinics are thriving because most of us in general practice ignore dry eye. Patients need help, and they have to find a place to go, so they end up at tertiary care centers. But I think it's better for both patients and practitioners to treat patients under one roof.

ADVANCED TREATMENT STRATEGIES

Dr. Schachter: If patients fail tears, nutraceuticals, and lifestyle changes, what do we do next?

Let's talk about Step 2 (Figures 2A and 2B). We have a lot of options available. In addition to intense pulsed light (IPL) therapy and meibomian gland expression, another option is to prescribe drops, such as cyclosporine 0.05% (Restasis, Allergan) or 0.09% (CEQUA, Sun Ophthalmics), or lifitegrast (Xiidra, Novartis). I was launched into the dry eye world when I started embracing the DEWS II algorithm and my prescription numbers skyrocketed. I didn't become aggressive with dry eye—just appropriate. Previously, if patients told me their eyes were dry, I just handed them some tear samples and told them they could buy more of their favorite one at the store.

Ms. Barkey: We don't even let reps leave samples of artificial tears in our office. We want patients put on very specific products based on their condition—for example, Refresh Liquigel Eye Drops (Allergan) for long-term efficacy. If there are samples in the cabinet, doctors tend to hand them out to patients and not even write down in the patient record

Step 2

- In-office, physical heating and expression of the meibomian glands (including device-assisted therapies)
- In-office intense pulsed light therapy for MGD (IPL)
- Prescription drugs to manage DED
  - Topical antibiotic or antibiotic/steroid combination applied to the lid margins for anterior blepharitis (if present)
  - Topical corticosteroid (limited-duration)
  - Topical non-glucocorticoid immunomodulatory drugs (such as cyclosporine)
  - Topical LFA-1 antagonist drugs (such as lifitegrast)
  - Oral macrolide or tetracycline antibiotics

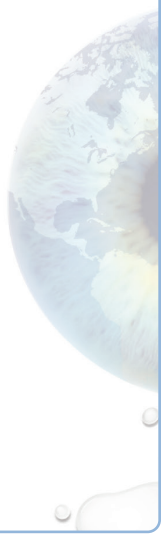

FIGURE 2B. More options for treating dry eye if initial treatments are ineffective.

what they gave. If patients come back complaining, or if they loved the drops, doctors are at a loss because they don't know what the patient received. We removed all of that, so we know exactly what we're giving our patients.

Dr. Hauser: You raise a great point. In record-keeping, please don't just write "artificial tears." Identify which tear it is and why you chose it. Maybe you picked one of the preservative-free versions, such as Refresh Plus (Allergan), because you think the patient may be sensitive to preservatives. When the patient tells you how the tear worked, we know which path to take next.

Dr. Bloomenstein: I think it goes to that heart of that sea change that I mentioned. Artificial tears are palliative. Every one of us here knows that. There's no risk in telling a patient to use a tear, because it might offer some temporary relief.

But this is an inflammatory disease, and we need to think about how we control the inflammation. Tears alone can't help. We need to prescribe medications to address the inflammation.

Dr. Schachter: There's just not one magic bullet. I use prescription drops, such as cyclosporine formulations and tears together. I often have patients put their prescription drops in at home in the morning. They go to work, where they use artificial tears before they start, before and after lunch, and at the end of the day. Those four drops extend the life of the tear film and reduce some symptoms. At night, it's back to their prescription. That's where tears fit into treatment for me.

Dr. Robben: The steps build on each other. I think it's important to be clear that when you go to Step 2, you don't stop Step 1.

Ms. Barkey: You continue with individually prescribed artificial tears and nutraceuticals, such as HydroEye. That's the foundation. And you go to Step 2 with medical treatment, IPL, and MGD treatment lid and lash cleansing, and IPL if warranted based on the patient's conditions. These treatment steps build on top of each other.

Dr. Schachter: An evidence-based approach to dry eye can be profitable. When I put a dry algorithm into place in my practice and committed to examining every patient for dry eye, every single time, I tripled my medical followups within 6 months. We built the volume but kept revenue per patient intact.

Ms. Barkey: Dry eye patients are like annuities, because they're going to come back. You're managing the disease, not curing it. You'll see them repeatedly over the years.

Dr. Hauser: Glaucoma management has a similar model, but with glaucoma there are no out-of-pocket services you can offer that are efficacious and safe. Dry eye services present an opportunity for your practice thrive and attract new patients.

Dr. Schachter: It's a competitive advantage as well. In my practice, my goal is for patients to see and feel better than they could if they saw the doctor up the street. And it is not that hard to do, because unfortunately other doctors are not treating dry eye.

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Ms. Barkey: It's sad. I'll bet every one of you has talked to patients about dry eye and had them reply, "Why didn't anyone ever tell me this?"

Dr. Hauser: That's the most common thing I hear! We show patients what's happening and explain the disease, and it's completely new to them. They tell me about all the doctors they've been to before me, and they don't understand why those doctors didn't say anything.

Ms. Barkey: They name them—all those doctors—to you. And they name them on those Facebook dry eye support groups pages. Don't be the doctor who is called out on social media.

Dr. Hauser: Just as treating dry eye can benefit our practices financially, not treating it can have a negative effect. There's a lot of research into how dry eye negatively impacts surgical outcomes for LASIK and cataracts. I didn't see any studies that proved this effect from an optometric perspective, so my colleagues and I did a fairly small research project about how dry eye affects optical remakes.

We looked at optical remakes in patients who had undiagnosed dry eye disease, compared to a control group. The undiagnosed patients were asymptomatic, the kind of patients who likely would not tell the doctor that they have dry eye. They had poor OSDI and poor noninvasive tear breakup time. We found a statistically significant relationship between noninvasive tear breakup time and remakes. If a patient needs a remake, we need to consider if dry eye could be the cause.

Dr. Robben: The same concept applies to contact lens dropouts. The contact lens dropout rate has not changed in the last 15 years, and people still tend to drop out at around 45 to 50 years old. That affects revenue. It correlates to the inflammatory response. Patients aren't doing well in their contact lenses because their eyes are getting inflamed and dry, and doctors are just waiting for this to happen.

Dr. Hauser: If you ask most optometrists how many of their patients are dropping out of contact lenses, they think the answer is none. Contact-lens-intolerant patients don't come to the front desk, slam their fist down, and say, "I'm angry! I'm unhappy! I'm struggling!" They just fade away.

Dr. Schachter: I think patients are asking more of their eyes than ever. They want to wear contact lenses comfortably all day and sit in front of a computer and not blink. I want them to see clearly and feel comfortable, and for that they need a healthy ocular surface.

WORKING DRY EYE INTO THE PRACTICE FLOW

Dr. Hauser: Some of the biggest obstacles to treating more dry eye disease in optometric practices are time, insufficient staff, and the perceived difficulty of integrating it into the existing patient flow. We've touched on efficiency a few times. Let's get into exactly how we make dry eye treatment efficient in our practices.

> "MY GOAL IS FOR PATIENTS TO SEE AND FEEL BETTER THAN THEY COULD IF THEY SAW THE DOCTOR UP THE STREET. AND IT IS NOT THAT HARD TO DO, BECAUSE UNFORTUNATELY OTHER DOCTORS ARE NOT TREATING DRY EYE."
> —Scott E. Schachter, O.D.

Ms. Barkey: On the staff side, depending on the size of your practice and the volume of patients you're seeing, you could probably have one staff member dedicated to dry eye. If you train that person the right way, the return on that investment will be huge.

Dr. Bloomenstein: To me, this is the same thing that you're already doing in your practice. When patients come back in for a contact lens follow-up, you know that it's going to be a quick exam.

The same is true for dry eye follow-up. If your staff can educate patients about your recommendations, you save a lot of time. If someone can assist you with procedures like LipiFlow (Johnson & Johnson Vision) or TearCare or iLux (Tear Film Innovations), then treatment fits comfortably into your workflow.

Ms. Barkey: If you look at the revenue for doing one of those procedures in your office, your profit margin for treatment is so much higher than the margin for a contact lens patient or vision care patient. Make the time for these people, because that's where the profit and patient satisfaction lies.

Dr. Schachter: Revenues from medical visits are significant. If you bring the patient back for a medical visit, the patient will be in your practice for 10 minutes. Your staff learns more about symptoms, puts in the dye for you, and looks at tear quality and quantity. You examine patient and make a quick assessment (we use a checklist in my practice). You explain the diagnosis and first-line treatment to the patient, put the recommendations in a folder, and hand off the patient to a staff member who discusses those recommendations. You move on to the next patient.

A comprehensive examination takes about 8 or 9 minutes, and it drives follow-up medical visits that take only about 3 or 4 minutes. In my state, the medical insurance reimbursement for the follow-up is about four times the reimbursement for a comprehensive exam. Yes, dry eye takes time, but you're paid for your time.

Ms. Barkey: You're effectively delegating certain aspects of diagnostics and education. I've seen some doctors delegating treatments to staff, but I'd caution that patients want to be treated by a doctor, particularly when they're paying out of pocket.

Dr. Robben: It's efficient to do treatments ourselves, too. We can often leave patients while TearCare is heating, for example, because it's a wearable device, and then come back and do the

manual expression after it's done. And if you're efficient, you can do another dry eye evaluation while that patient is heating.

Dr. Schachter: I would absolutely delegate the SPEED survey, tear osmolarity, MMP-9, the Schirmer's score, and meibiography. If you think dry patients take too much time, that is a way for them to take less of your time.

Ms. Barkey: You can set triggers in that workup that will help your staff make decisions. For instance, when they're doing the case history and SPEED survey, if the SPEED score is over a certain number, that can trigger the staff to gauge osmolarity. You can set the triggers for MMP-9 testing and meibiography. The results of one test direct staff to the next step. When the patient gets to you, you have the data you need. There's no reason to order more tests.

Dr. Schachter: We do that very thing. If a patient has a positive SPEED score, staff tests tear volume, osmolarity, MMP-9 and meibiography.

Ms. Barkey: It's frustrating if you're going along smoothly and realize a patient has dry eye disease, but you have no testing. If the staff hasn't collected it, you know you need to change your system. Keep in mind that there are those asymptomatic patients that your technicians won't be able to weed out for you.

A DRY EYE STARTER KIT

Dr. Hauser: To be successful, you have to have the right tools to take care of dry eye patients. It's not a guessing game. We've talked about several diagnostic and treatment technologies. When doctors are getting started, do they need to have thermal devices like TearCare and point-of-care tests like an MMP-9 device? What does the "starter kit" look like?

Dr. Schachter: Start without that stuff. The ODDISEY European Consensus Group reported that moderate to severe dry eye can be managed with the symptom questionnaire and a fluorescein strip.[4] That's the beauty of ocular surface disease. You do not need to feel pressured to spend a bunch of money and use every available technology. Start asking the questions. Use some fluorescein. Push on the meibomian glands. Make recommendations. Build the medical side of your practice.

Get new devices as you need them. For example, once you see how many of your patients have MGD, you might consider buying a heated device that helps express the meibomian glands. Just build slowly and naturally, only making a purchase when there is a clear, demonstrated need and you know you'll use it. I'd also recommend avoiding diagnostics that take a lot of time to use. I find out what I need to know very quickly and make evidence-based decisions very quickly.

> **"SET YOUR PRICES AND CHARGE THOSE PRICES, BECAUSE THE PATIENTS WILL PAY. IF SOMEONE HAS A BROKEN ARM, THEY NEED AN X-RAY AND A CAST. THOSE THINGS AREN'T OPTIONAL. PATIENTS WITH DRY EYE HAVE AN ONGOING DISEASE PROCESS, AND TREATMENT ISN'T OPTIONAL."**
> —Patti Barkey, COE, OCS

Dr. Hauser: The device isn't going to make your practice. You make your practice, and the device serves your needs. The technologies are important, but it's better to work up to them, rather than make a major investment up front. You have to start somewhere, so start by being consistent with your evaluations, and then earn the right to buy a new device.

Dr. Bloomenstein: We've built up our tools that way. For example, we were very reluctant to get a meibographer in our practice. We just got one late last year. Now I see it as a simple, ground-level technology. I can show patients the problem and say, "This isn't good for anybody. Let's do something to change it."

Dr. Schachter: If someone doesn't have a meibographer, it's very easy to transilluminate the lower lid behind a slit lamp with the light turned off. Once you start looking, you see that there's a lot of atrophy in your patients, and you know you need to treat MGD.

Ms. Barkey: There's so much to learn about dry eye, and we are learning constantly as the industry brings us more products and more technologies to help diagnose and treat this segment of patients.

Our industry sometimes presents a new technology as a silver bullet—but dry eye requires a varied toolbox. It's sensible for practices to build that toolbox over time but, keep in mind that to be successful you must be careful at delaying care while you wait on an acquisition to take place. The patient's condition isn't going to improve without your help.

Dr. Robben always reminds the attendees at Dry Eye University that the patient with sever eye disease didn't start out at that level: He was allowed to progress. ●

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