ABB Optical Group

## Practice Development Series

# Preparing the Eye for a Scleral Lens Fit

## Q&A with Paul Karpecki, OD, FAAO

### An interview with Craig W. Norman, FCLSA

**Craig Norman**
*Your lecture this evening was Preparing the Eye for a Scleral Lens Fit. Can you address exactly what is meant by that title?*

**Dr. Paul Karpecki**
The title is really merging two key categories that are imbedded into our profession. It means analyzing the ocular surface, treating it if necessary, then when indicated maximizing the surface with contact lenses.

What I mean is, for specialty lenses, patients want to have the optimal results. They want quality vision and comfort. They want to be able to achieve results they could achieve with any other modality.

An important part of that is ocular surface quality. In fact, 75% of the quality of our refraction is based on our tear at cornea interface. So, the two tie in beautifully together in terms of optimizing results for these patients who naturally have a higher level of expectation.

What's interesting, is that most of these patients who don't get the results expected with specialty lenses could well be from the fact that it is related to tear film and related to dry eye.

The melding of these two areas of expertise becomes a highly effective way of getting results that surpass anything else a patient can achieve.

**Craig Norman**
*Where do you look at scleral lenses playing a role? For what type of condition do they fit into your treatment armamentarium?*

**Dr. Karpecki**
Scleral lenses play a critical role because they are what I call penultimate treatment when it comes to ocular surface disease.

If you go from top down, by saying "Okay, what's the most effective thing I can do for ocular surface disease management?" it's probably a scleral lens.

If you're already a scleral lens fitter and you're already considered that part of your specialty, you're working downward to managing the ocular surface.

So, you have this ability to then optimize that.

And now you can say, "Okay, what other things can I do to enhance the success of this category?" And if you're into scleral lenses, you're going to have a lot of advanced ocular surface disease.

You're going to have severe dry eye patients. You can have corneal irregularity patients. You can have a lot of these aspects where dry eye management becomes essential to their success.

It's like I said, a top-down approach where you're already treating with the best treatment you could possibly do. What else could we do beyond that?

I think about when I've had dry eye patients in my clinic where nothing would work ultimately with scleral lenses that allow them to have success.

That doesn't mean you don't fully understand all the other aspects of managing the ocular surface disease for every subset of patients.

So now you've encompassed the treatment from basic, moderate, mild to all the way to severe patients where scleral lens has come into play.

**Craig Norman**
*Don't you think it's fascinating how scleral lenses have risen like Phoenix from the ashes in the world of contact lenses?*

We could be having this conversation just 10 years ago and we would have been saying, "Well, if they work, I don't know how they can work. I don't know who can use them.

But they've played such a significant role. And the primary reason is, it's the only contact lens product that I've dealt with in my career that fully lives up to its promise.

**Dr. Paul Karpecki**
That is incredibly well said and that is the key. Many think scleral lens success has been an overnight success and that all of a sudden it became this great thing.

It has risen from the ashes to be this incredible technology. It's making a difference in patient's lives when nothing else has worked.

But I think a lot of it is stemmed from our greater understanding of the ocular surface and where scleral lenses are best suited.

We knew before there could be success with sclerals, but I think now we're just getting many more opportunities to show the ability to do so.

**Craig Norman**
*Looking back, can you imagine that at one time leaders in our field discussed that the way to treat dry eye is with a soft lens. It's like this is the craziest answer you could possibly get, right?*

Because for any available tear that is there, the soft lens is going to suck it up and there's not going to be enough left to wet for the eye.

It appears that we're finally emerging out of COVID. But for most of us our lives and worlds have changed, at least for a while.

I expect that many people are going to continue to wear masks at some level.

*So, what impact does routine mask wearing as causation for any of the dry eye conditions you talk about?*

**Dr. Paul Karpecki**
It's amazing that you've thought of this because it doesn't come up as much as expect.

I didn't even think of this when we first started wearing masks. But if you think about it, a good example is you put eyeglasses on and wear your mask, they fog up immediately.
Well, that's just telling you the airflow is going right into your glasses.

So, it's no surprise now.

But now we're seeing this 400% increase in chalazion and hordeolum and it's helping us to understand that's what's happening.

These may be good functioning glands it's just that there's nowhere for the secreted oils to go. So, it just starts to accumulate and results in that hordeola formation.

So, what's happening is the orifices are being covered, being dried out by the airflow. It's almost like having a CPAP on all day long and creating these airflows can lead to all kinds of dry eye problems.

I don't think that masks are going away especially in medical practices like Optometry, they're going to always be there for a significant period.

We may see them dissipating as more people get vaccine, so masks may not be worn in certain business. But I just don't see that happening in medical field and I certainly don't see that in certain public areas. So, this is something we're going to deal with.

We're going to see more ocular impact, more desiccation, more dry eye, more eyelid issues and certainly more need for understanding this area of ocular surface disease that we've discussed.

**Craig Norman**
Yeah, it's an interesting point you say, on the behavior it might have on the eyecare practitioner themselves. Time will tell, but I think, especially in the short term, what will happen in the medical practices and in the eyecare practices is the same thing that happened to dentistry during the HIV scare. The dentist's office would not think of not having masks everywhere being worn on everybody.

*Can you talk a little bit about devices? Can you talk about some of the OTC or prescription drops you look at as treatment options for dry eye?*

**Dr. Paul Karpecki**
Wow, that's a big question.

I love it because I think part of the reason why webinars are so popular today is because there are so many options to discuss.

This is fascinating because just a decade ago we were so limited in our options. And if we go back two decades, literally all we had were artificial tears and punctal plugs.

So, you look at where we are today and it's just the opposite. We're inundated with opportunities. We're inundated with technologies, devices. Just in thermal expression alone we have four or five devices. Whether it's using a Bruder mask and manual expression all the way to LipiFlow, or iLux, Thermal 1-touche and TearCare.

You've got multiple forms of eyelid hygiene products. We used to have surfactant cleaners which are very effective. Now we've got hypochlorous acid, tea tree-based cleaners.

We've got a whole host of some that have Phytosphingosine which creates less of a redness. We've got redness remover drops, a whole host of artificial tears and rewetting drops.

And then we get into biologics, not to mention even therapeutics which we just covered. Biologics get into your cytokine extract, like Regener-Eyes drops which have incredible success. Autologous serum which means drawing bloods is not as convenient as say Regener-Eyes but is an option.

This is exciting because it works, plus, you're rewarded quickly by these patients. Also, if you're involved in scleral lenses, you have every level of treatment available now for these patients. Sclerals for those where nothing works, but of course you could do something else sooner to help the patients, as well.

**Craig Norman**
*Can you close by telling me where Regener-Eyes LITE fits in for you in the practice?*

**Dr Paul Karpecki**
Regener-Eyes LITE has been a wonderful addition to the practice. And the question about where it fits in is a good one because it really depends on a lot of factors.

Number one, from a clinical perspective where I've had incredible success with it is in patients that have corneal staining. And of course, Craig, you could say, "Well, don't most patients with dry eye have a corneal staining?"

And the answer is yes. But there are patients who have the more recalcitrant forms where it's exceedingly difficult to get it controlled. Situations where not a lot works from a therapeutic standpoint.

Regener-Eyes LITE works in those patients. Sure, amniotic membranes work too, but that's a short-term therapy where you put it on the eyes for a few days.

This is essentially giving you the same thing in a drop where you can use it in lieu of that or adjacent or adjunctive to that long-term against that.

Because the cost is very reasonable, especially in the LITE form, it allows you to use something with incredible benefits.

Besides the clinical benefit, Lite is helpful in another way as well. Unfortunately, insurance companies dictate so much of what we want to do, even to the detriment of the patient's success. And because of that it makes some of these drops truly unaffordable.

I've had patients where their cyclosporine drops were $500 a month. It's just not reasonable for many patients to chronically treat a condition at those costs.

This is a set amount. And if you sell it out of your office it's even less expensive than them trying to order it.

So, the company has really set the Optometrist or Ophthalmologist up for success by having it available to order through them because you're going to get it more reasonable, and you'll be able to treat those patients where no other options were there.

So not only is Regener-Eyes LITE ideal based on the clinical picture and its improvement to the ocular surface. Being a more natural approach, which I tend to lean towards anyways, combined with the insurance and pharmaceutical environment, gives us another alternative that achieves at least as great as success as those other drops.

**Craig Norman**
*Thank you, Dr. Karpecki – you sharing your expertise is greatly appreciated.*