

SPECIAL SECTION

KNOWLEDGE CENTER

DRY EYE

The Knowledge Center is a special section in *Optometric Management* created to inform and educate you about current ophthalmic products and services, and how they improve patient care and make practice more efficient.

In this Knowledge Center, the focus is on dry eye-related testing technology offered by Quidel. A future edition of the Knowledge Center will cover diagnostic instruments and technology.

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ARE YOU TESTING THIS OCULAR VITAL SIGN?

Fast, accurate MMP-9 test guides therapeutic decision-making for dry eye disease



While 40% to 60% of symptomatic dry eye patients have significant inflammation, traditional testing methods, such as tear breakup time and Schirmer's, can't predict which patients they are.^{1,2} Yet, differentiating the "haves" from the "have nots" is essential for clinicians.

Matrix metalloproteinase-9 (MMP-9), a biomarker for inflammation, is elevated in the tears of patients with dry eye disease (DED). InflammDry (Quidel) is the first and only rapid in-office test that detects MMP-9 in tears.

MMP-9 INFORMS TREATMENT DECISIONS

"When elevated, the MMP-9 enzyme causes significant disruption of the ocular surface, leading to the death of epithelial cells on the cornea, eventually manifesting as punctate keratitis or corneal staining," says Damon Dierker, OD, FAAO, director of optometric services at Eye Surgeons of Indiana in Greenfield. "Importantly, MMP-9 is elevated—and detectable by the InflammDry test—well before we see the corneal sequelae that we all know as dry eye."

Having an accurate test that identifies an inflammatory component in DED enables practitioners to prescribe appropriate therapies before visually significant changes occur.

"A positive test tells me I need to tailor my treatment to include anti-

inflammatory therapies, such as topical immunomodulators or topical steroids," Dr. Dierker says. "It also tells me to defer punctal occlusion in most cases, as it can exacerbate ocular surface inflammation."

IMPACT OF INFLAMMATION

Any form of ocular surface disease (OSD) that's not addressed before cataract or refractive surgery creates a risk for poor visual outcomes. Dr. Dierker includes InflammDry in his preoperative assessment to identify subclinical inflammation so he can develop a DED treatment plan to optimize the ocular surface before proceeding with surgery.

"I consider MMP-9 a vital ocular sign and critical to managing all patients with OSD and DED specifically," he says, "Our technicians perform an InflammDry test for any patient who has symptoms of DED, and it is part of every routine follow-up visit for established dry eye patients. It's a simple, four-step process that provides results in 10 minutes, so it doesn't disrupt patient flow."

Point-of-care testing helps him gauge the efficacy of therapy, and Dr. Dierker believes it also helps with patient compliance. "Patients have more confidence in the DED diagnosis and the need for anti-inflammatory therapy if we've done a diagnostic test," he says. "When the test shows posi-

tive changes during treatment, even before symptoms improve, patients are encouraged to continue with therapy."

ENHANCE YOUR PRACTICE WITH DIAGNOSTICS

"Dry eye is a huge opportunity for primary care optometrists to have a positive effect on all patients coming in for comprehensive eye examinations," Dr. Dierker says. "Integrating point-of-care diagnostic tests as part of routine clinical protocols enables practitioners to more efficiently and more accurately diagnose dry eye disease and choose the therapy that will be most effective for each patient."

Quidel Corporation is a leading diagnostic healthcare manufacturer dedicated to enhancing the health and well-being of people around the globe through the development of diagnostic solutions that can lead to improved patient outcomes and provide economic benefits to the healthcare system.

REFERENCES

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2. Lanza NL, McClellan AL, Batawi H, et al. Dry eye profiles in patients with a positive elevated surface matrix metalloproteinase 9 point-of-care test versus negative patients. *Ocul Surf*. 2016;14(2):216-223.



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