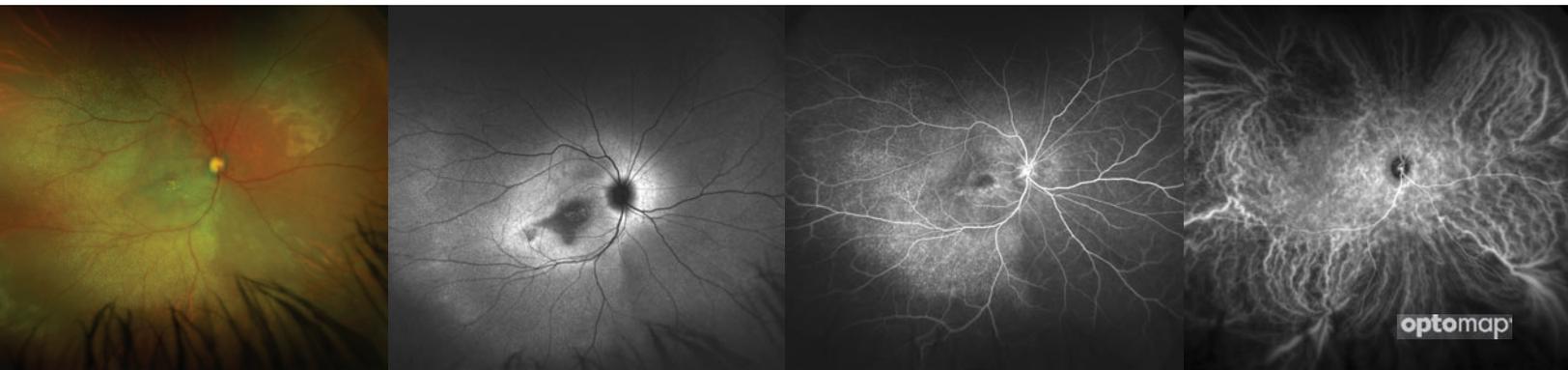


# optomap®

## CLINICAL APPLICATIONS AND FUTURE TRENDS



**Ultra-widefield (UWF™) imaging is evolving to become the standard of care imaging modality for many diseases and is finding new clinical and research applications such as for screening and telemedicine .**

- Over the last decade, UWF imaging has greatly enhanced our realization of the importance of the peripheral retina and its vasculature in a variety of conditions.<sup>1,2</sup>
- **optomap color** imaging has been validated in several studies finding sensitivity and specificity to be similar to traditional retinal photographs, but providing additional information about the health of the periphery. These benefits have been evaluated for telemedicine programs, diabetic retinopathy, retinal breaks and tears, pediatric retinal disease, myopia, ocular oncology, inflammatory disease and a variety of vascular and inherited retinal disorders.<sup>1,2</sup>
- The clinical utility of **optomap af** has recently become apparent with studies demonstrating the high prevalence of peripheral autofluorescence changes in AMD, uveitis, retinal dystrophies, and CSCR.<sup>1</sup>
- **optomap fa** has been found to be superior to ETDRS demonstrating angiographic abnormalities in multiple studies in eyes with diabetic retinopathy; has reported benefits in patients with retinal vein occlusion (RVO), sickle cell disease, antiphospholipid antibody syndrome, beta-thalassemia, Takayasu's arteritis, Muscular Dystrophy, Susac's Syndrome, HELLP, retinal detachment, myopia, retinopathy of prematurity (ROP) and oncology.<sup>1</sup> **optomap fa** has also been used to better understand the normal retinal vasculature.<sup>2</sup>
- Recent studies using **optomap icg** demonstrate diagnostic utility in a variety of disorders, including central serous chorioretinopathy (CSCR), uveitis, and age-related macular degeneration (AMD).<sup>1</sup>

*“With exciting new clinical applications on the horizon, UWF imaging will likely become the standard of care not only for diagnostic purposes but also for screening, telemedicine, and perhaps even treatment.”<sup>1</sup>*

— RETINA 2016

See how **optomap** will help you manage your patients. For more information call **800-854-3039** or email **BDS@optos.com**.

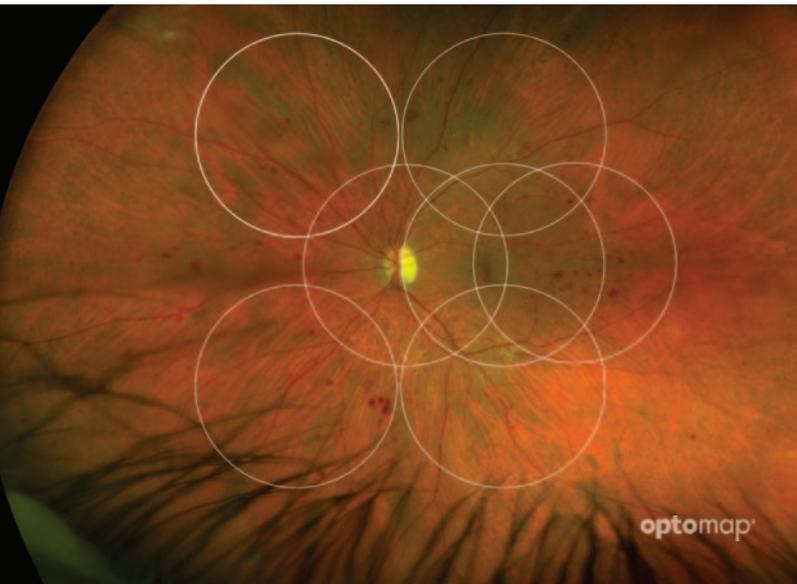


# CLINICAL SUMMARY

## Ultra-widefield Fundus Imaging : A Review of Clinical Applications and Future Trends

Nagiel, Lalane, Sadda, Schwartz  
RETINA - 2016

- Studies comparing UWF imaging with traditional photographs have determined the sensitivity and specificity to be similar but with additional peripheral information provided by UWF imaging.
- More than 70% of eyes with AMD have peripheral abnormalities detectable on **optomap** and **optomap af**.
- **optomap fa** has been found to be superior to ETDRS demonstrating angiographic abnormalities in multiple studies in eyes with diabetic retinopathy.
- Eyes with Behcet retinal vasculitis found that **optomap fa** detected active vasculitis not otherwise detectable in 85% of eyes, which prompted a change in management in 80% of patients.
- UWF imaging can provide a more precise documentation of the extent of retinal detachment compared to indirect ophthalmoscopy and provides an efficient way for the vitreoretinal surgeon to record the outcomes of surgical interventions as well as for counseling patients regarding their condition.
- **optomap** imaging represents an alternative method for documenting pediatric retinal pathology in an outpatient setting, obviating the need for an examination under anesthesia in some circumstances.
- Using **optomap af**, 57% of eyes with CSCR had peripheral autofluorescence changes undetectable by clinical examination and 49% of eyes had gravitational tracks or gutters signaling past or present fluid movement from the macula to the inferior periphery.
- **optomap icg** demonstrated the presence of engorged choroidal vessels from the posterior pole to the vortex vein ampullae in over 80% of eyes with CSCR.
- Over the last 10 years, the Optos camera has undergone numerous technological improvements and has been used effectively in an increasing number of clinical settings.
- Optos introduced a stereographic projection software algorithm to correct for the peripheral distortion and yield images which maintain the same angular relationship at every eccentricity. The accuracy of the measurements derived from this software has been validated in eyes containing prosthetic implants of known sizes.



**optomap color** image of diabetic retinopathy demonstrating the field captured by ETDRS 7-standard field and the peripheral lesions that would have been missed.

#### References:

1. Nagiel et al ULTRA-WIDEFIELD FUNDUS IMAGING A Review of Clinical Applications and Future Trends RETINA 2016
2. Ultra-wide field retinal imaging: A wider clinical perspective. Indian Journal of Ophthalmology. 2021.



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