

# optomap

## FOR PEDIATRIC PROGRAMS

**Optos was founded by Douglas Anderson after his then five-year-old son Leif went blind in one eye when a retinal detachment was detected too late. The intention was to create a way of non-invasively capturing as much of the retina in one image as possible.**

Results from several recent clinical studies published suggest that **optomap** may be an essential element to the screening and management of pediatric patients.

*“The availability of Optos UWF imaging is helping us improve the diagnosis and management of pediatric retinal disease, in both babies and older children. With these systems we can now readily obtain non-contact, single-pass, high resolution digital images of the macula and periphery in an outpatient setting without the use of anesthesia or intravenous fluorescein. Even with patients who would not be able to cooperate with conventional imaging techniques, UWF imaging permits the identification of pathology in the periphery we might otherwise have missed and can help target laser photocoagulation. We are very interested in continuing our clinical evaluation of UWF in pediatric patients, including its potential role in telemedicine programs”*

— Chetan K. Patel, FRCOphth

### CLINICAL SUMMARY

- **optomap** can obtain high-quality images in babies with retinopathy of prematurity (ROP) down to 34 weeks. Optos imaging was faster, elicited better pediatric patient cooperation, negated the need for anesthesia, captured a larger coverage area, and achieved better image clarity compared to conventional contact-based imaging.<sup>1,2,3,4</sup>
- **optomap** has been shown to capture up to 75% more abnormal peripheral pathology in pediatric patients unseen by conventional imaging methods in ROP,<sup>1,2,3,4</sup> incontinentia pigmenti,<sup>5</sup> uveitis, hereditary retinal dystrophies, retinal vascular diseases, trauma, infection, tumors,<sup>6</sup> Familial exudative vitreoretinopathy (FEVR), Coats' disease<sup>7</sup> and MARFAN syndrome.<sup>8</sup>
- **optomaps** are obtained without contact and allow for the successful management of infants in the early post-operative stage and following intravitreal injection in high risk ROP.<sup>1,2,3,4</sup>

See how **optomap** will help you improve the way you manage your patients.

For more information call **800-854-3039** or email **BDS@optos.com**

Building **The** Retina Company



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# CLINICAL SUMMARY

## optomap® for Pediatric Programs



Healthy pediatric screening optomap

- Results published in Eye showed for the first time that Optos non-contact ultra-widefield (UWF) imaging can obtain high-quality images in ROP. Optos imaging was faster, elicited better pediatric patient cooperation, negated the need for anesthesia, captured a larger coverage area and achieved better image clarity compared to conventional contact-based imaging. These results also suggest the potential utility of Optos UWF imaging in the development of telemedicine programs for managing discharge from hospital screening programs, evaluating disease severity, and informing treatment decisions.<sup>1,2,3,4</sup>
- In the Journal of AAPOS, researchers described the first case report of the use of oral fluorescein and **optomap** color and *fa* in an office setting on a non-sedated infant with incontinentia pigmenti. The Optos system also correctly identified retinal neovascularization and avascular retinal zones, which subsequently permitted targeted laser treatment of retinal capillary nonperfused areas.<sup>4,5</sup>
- A study, published in Ophthalmic Surgery, Lasers and Imaging Retina, was conducted to evaluate the utility of **optomap** *fa* in children under 13. The retrospective case series examined images from patients (mean age 9.3 years) who were seen for a variety of pediatric retinal conditions, including uveitis, hereditary retinal dystrophies, retinal vascular diseases, trauma, infection, and tumors. In these patients, abnormal peripheral angiographic findings were found in 75%.<sup>6</sup>
- Familial exudative vitreoretinopathy (FEVR) and Coats' disease, both pediatric retinal diseases that involve the peripheral retina, can be evaluated using **optomap** *fa*. As reported in Journal of Pediatric Ophthalmology and Strabismus, a review of cases confirmed the utility of **optomap** *fa* in targeting laser photocoagulation, administered in an outpatient setting without the use of anesthesia. The investigators concluded that **optomap** *fa* is useful in identifying peripheral retinal pathologies in pediatric patients, guiding management, which may potentially reduce delays in diagnosis and treatment.<sup>7</sup>

#### References:

- <sup>1</sup> Non-contact Ultra-widefield Imaging of Retinopathy of Prematurity Using the Optos Dual Wavelength Scanning Laser Ophthalmoscope. Eye. 2013.
- <sup>2</sup> Noncontact High-Resolution Ultra-Wide-Field Oral Fluorescein Angiography in Premature Infants With Retinopathy of Prematurity. JAMA Ophthalmology. 2014.
- <sup>3</sup> Ultra-wide field imaging of retinopathy of prematurity (ROP) using Optomap-200TX. British Medical Journal. 2014.
- <sup>4</sup> Non-contact Ultra-widefield Imaging in Lasered Retinopathy of Prematurity. Indian Journal of Pediatrics. 2015.
- <sup>5</sup> Non-contact ultra-widefield retinal imaging and fundus fluorescein angiography of an infant with incontinentia pigmenti without sedation in an ophthalmic office setting. Journal of AAPOS. 2013.
- <sup>6</sup> Pediatric retinal conditions imaged by ultra wide field fluorescein angiography. Ophthalmic Surgery, Lasers and Imaging Retina. 2013
- <sup>7</sup> Ultra-widefield imaging for the management of pediatric retinal diseases. Journal of Pediatric Ophthalmology and Strabismus. 2013.
- <sup>8</sup> Retinal Disease in Marfan Syndrome: From the Marfan Eye Consortium of Chicago. Ophthalmic Surgery, Lasers and Imaging Retina. 2015

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