## optomap®

## FOR PEDIATRIC IMAGING



Results from numerous clinical studies suggest that optomap is an essential element to the screening and management of pediatric patients.

- optomap can obtain high-quality images in babies with retinopathy of prematurity (ROP) down to 24 weeks gestation.<sup>1</sup>
- Optos® imaging is faster, elicits better pediatric patient cooperation, negates the need for anesthesia, captures more retinal area, and achieves better image clarity compared to conventional contact-based imaging.<sup>12,3,4</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> Marfan syndrome<sup>8</sup> and sickle cell retinopathy.<sup>9</sup>
- optomap images 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>
- In a primary care pediatric environment in patients between 3-17 (mean age 11), 1 in 9 children needed a referral to ophthalmology.
  optomap imaging was rated 3.4 out of 4 rating for patient comfort, and less than 1% of images were upgradeable with the most common diagnoses being retinal lesion, myopia and optic nerve abnormalities.<sup>9</sup>

"The availability of Optos UWFTM 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."

— Chetan K. Patel, FRCOphth

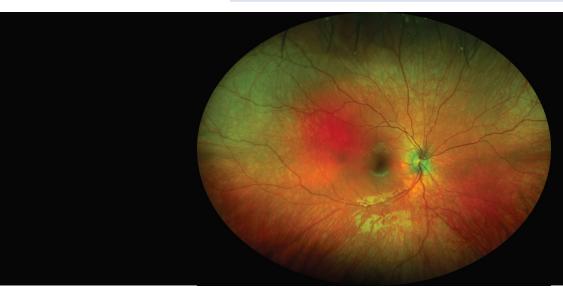
See how **opto**map will help you manage your patients. For more information call **800-854-3039** or email **BDS@optos.com.** 





## **CLINICAL SUMMARY**

## optomap for Pediatric Programs



Healthy pediatric screening optomap rg

- 75% of pediatric patients under 13 have abnormal peripheral angiographic findings when screened with optomap fa for a variety of pediatric retinal conditions, including uveitis, hereditary retinal dystrophies, retinal vascular diseases, trauma infection and tumors, according to a study published in Ophthalmic Surgery, Lasers and Imaging.6
- In a retrospective case series with a mean age of 11 years old, **opto**map *fa* successfully captured venous phase 100% of the time and arterial phase 43% of the time. The most common diagnoses were ROP (13%), Trauma (7%), Coats' disease (7%) and rhegmatogenous retinal detachment (7%).10
- In a study of **opto**map *af* in patients between 1-13 (mean age 5)6, **opto**map *af* was more sensitive than clinical exam and **opto**map *rg* in detecting inherited retinal dystrophies (95% vs 49% vs 68%).11
- optomap guided SS-OCT on the Silverstone device has shown efficacy in predicting and documenting treatment outcomes before and after intravitreal anti-VEGF injections.<sup>12</sup>
- FEVR and Coats' disease, pediatric retinal diseases involving the peripheral retina, can be evaluated using **opto**map *fa* and target laser photocoagulation administered in an

- outpatient setting without the use of anesthesia which may potentially reduce delays in diagnosis and treatment.<sup>7</sup>
- There is a strong correlation between Optos and OCT over a wide range of optic nerve size, in pediatric patients with optic nerve hypoplasia.10
- optomap is superior to dilated fundus exam in detecting capillary occlusion or anastomosis making it a sensitive screening tool for sickle cell retinopathy in pediatric patients.<sup>11</sup>
- One case report of the use of oral fluorescein and **opto**map *fa* in an office setting on a non-sedated infant with incontinentia pigmenti reported the Optos device correctly identifies retinal neovascularization and avascular retinal zones, which subsequently permitted targeted laser treatment of retinal capillary nonperfused areas.<sup>4,5</sup>
- optomap green channel provides a non-invasive, clinically useful way to investigate the development of persistent avascular retina, mitigating the risks and challenges of administering fluorescein in premature children.<sup>13</sup>

References: 1. Binocular Indirect Ophthalmoscopy Complements Non-contact Wide-field Imaging with Optos to Treat a Baby Outside ETROP Guidelines. Turkish Journal of Ophthalmology, 2018. 2. Non-contact Ultra-widefield Imaging of Retinopathy of Prematurity Using the Optos Dual Wavelength Scanning Laser Ophthalmoscope. Eye. 2013. 3. Noncontact High-Resolution Ultra-Wide-Field Oral Fluorescein Angiography in Premature Infants With Retinopathy of Prematurity. JAMA Ophthalmology, 2014. 4. Ultra-wide field imaging of retinopathy of prematurity (ROP) using Optomap-200TX. British Medical Journal. 2014. 5. Non-contact Ultra-widefield Imaging in Lasered Retinopathy of Prematurity. Indian Journal of Pediatrics. 2015. 6. 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. 7. Pediatric retinal conditions imaged by ultra wide field fluorescein angiography. Ophthalmic Surgery, Lasers and Imaging Retina. 2013 8. Ultra-widefield imaging for the management of pediatric retinal diseases. Journal of Fediatric Ophthalmology and Strabismus. 2013. 9. Retinal assess in Marfan Syndrome: From the Marfan Eye Consortium of Chicago. Ophthalmic Surgery, Lasers and Imaging Retina. 2015 10. Direct OPTOS Nerve Size Determination of Prevalent Optic Nerve Hypoplasia in Alaska. Clinical Ophthalmology, 2020. 11. Wide-field imaging of sickle retinopathy. International Journal of Retina and Vitreous. 2019. 12. Ultrawide-Field Fundus Autofluorescence for the Detection of Inherited Retinal Disease in Difficult-to-Examine Children. Journal of Pediatric Ophthalmology and Strabismus. 2019 13. Ünal, A.C., Akidan, M. & Erol, M.K. A comparation of three different anti-VEGF drugs in development of persistent avascular retina in premature children. Sci Rep 14, 31097 (2024).



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