

MELBOURNE COMPANY ADAPTS PERIMETRY SOFTWARE TO MEET CHANGING NEEDS

An Australian software solution that measures visual fields on multiple platforms, including iPad, has now been translated into a browser-based interface, making it compatible with common IT equipment.

The brainchild of Glance Optical directors Dr George Kong and Professor Algis Vingrys, Melbourne Rapid Fields (MRF) was developed with The Royal Victorian Eye and Ear Hospital and The University of Melbourne.

The technology shot to prominence during COVID-19 due to its usability as a telehealth tool and significantly reduced risk of viral transmission compared with standard perimetry bowls.

The latest software development means MRF can be used for a broader range of remote ophthalmology and optometry telehealth purposes.

Vingrys, former head of optometry and vision sciences at The University of Melbourne, has extensive experience in vision testing and developed the perimeter and online vision test jointly with Kong.

"The translation of our software to a browser-based interface means it can be used with any equipment – so long as it is similar in size or larger than a 9.7-inch iPad – after a calibration step," Vingrys said.

"I believe there are a few Queensland optometry practitioners who run outreach from their home base using this



Dr George Kong.

Prof Algis Vingrys.

telemedicine potential for diabetic patients who may live quite a distance away."

Kong – an ophthalmologist, glaucoma specialist and medical technology entrepreneur – and Vingrys formed Glance Optical in 2015.

Since the COVID-19 outbreak, they have been adapting the MRF software to align with new demands on the public health system.

"The software is designed to allow accurate visual field testing (static perimetry) using any computer or tablet screen such that the testing can be performed using commonly found IT equipment in optometry and ophthalmology clinics and even in patients' homes," Kong said.

"The software performs a simple calibration step to allow the test to be displayed on different size screens with different specifications. Our software has

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GEORGE KONG, GLANCE OPTICAL

been validated in several peer-review papers and has TGA registration."

Kong said there had been a surge of interest in the technology from the local and global ophthalmic community.

"This is because the software allows patients to perform a reasonably good assessment of the visual field and visual acuity using their own computer at home, therefore providing meaningful information that is valuable for telehealth consultations. It also helps to triage patients who most need clinic appointments."

He continued: "In addition, using a computer screen for visual field testing solves a concern associated with conventional perimeters, that is, the risk of cross infection due to patient's aerosolised breath lingering in the dome of the conventional perimetry machines. There is no need for contact between the patient's face and device. It's also easy to clean between patients when used in clinic.

"Therefore, MRF is valuable even in the clinic setting in place of standard perimetry. I have been using the MRF exclusively in my own private practice in the past year for this reason."

MRF software performs testing quickly, Kong said, taking three-and-a-half minutes per eye, on average and has capability for binocular field testing. It is distributed by Designs For Vision. ■

IRIS PROGRAM PERFORMS 500TH CATARACT SURGERY

The Indigenous and Remote Eye Health Service (IRIS) delivered on its two-year government contract to perform 500 cataract surgeries, as coordinators warn of the disastrous implications if the program loses funding.

A specialist IRIS team travelled to Katherine, in the Northern Territory in late November to conduct the final round of cataracts as part of the IRIS 2.0 program.

Vanguard Health, operated by CEO Mr Tim Gallagher, was awarded a \$2.2 million Federal Government grant in August 2018 to deliver the 500 cataract surgeries in priority areas by 30 June 2020. The

deadline was extended to 31 December 2020 due to COVID-19.

"I'm very proud of what IRIS has achieved, and proud of the professions of optometry and ophthalmology that have made a big difference to people's lives," Dr Bill Glasson, the IRIS co-chair and Queensland lead, said.

"What I love about the program is, with the dollars we get, 99% of it goes into treating patients in their communities – no one's being paid to sit in committee meetings, and those that do, do it for nothing because we think it's such a great service."

IRIS 1.0 originated in 2009 and performed thousands of eye health services until



Rosemary was the 500th patient.

2014 when the funding expired, causing eye health to decline. Reinstated in 2018, Glasson hoped the government would continue to recognise its importance and renew the contract for 2021 and beyond.

"I keep saying to the government it's costing you bugger all for the outcomes we are delivering, so please continue to fund it. If it loses funding, the service will fall apart and all these patients who already have three times the rate of vision loss compared to non-Indigenous Australians could blow out to six times more – we will have more people losing vision, losing confidence in themselves and sustaining falls and becoming depressed." ■