

## President's Insights July 2022

A thorough refraction performed by a well-trained optometrist is, of course, important to each of our individual patients. A subjective refraction is as much art as it is technique, and is one of the many reasons we support the need for qualified optometrists globally.

Many of our patients would be surprised to know that there is not just one true glasses or contact lens prescription for them. They would probably be equally surprised that this prescription is likely different from that which is determined by the "magical" autorefractor. Glasses prescriptions are written in numbers, which seems like they are very concrete and definitive. However, there is as much clinical decision making in determining a final vision prescription as there is in any other prescription. Physician A could examine a patient with hypertension, and based on her dialogue with the patient, her experience with the various medications available and other factors such as what is covered by insurance or what is available at the pharmacy, determine that medication A is the most appropriate. Physician B could examine that same patient and decide that medication B is the most appropriate. Neither physician is wrong; both medications are likely to treat the hypertension without any adverse effects.

The same goes for glasses prescriptions. The patient and doctor go through the whole, "which is better" process, but this is not the end of decision making. Sometimes the slightest hesitation when deciding between "one or two" reveals significant data about the patient's refractive status. A good optometrist knows to compare the visual acuities from the old prescription to the new one and make sure the change in the prescription actually improves the patient's vision. Clinicians will sometimes decide to cut back a prescription a little if we think the patient will have trouble adapting. Or we may decide to change the axis from what was determined for each eye separately to improve the binocularity of the patient. We may trial frame the prescription and decide to make changes based on the patient's reaction. There is a myriad of reasons why what we prescribe to the patient may be somewhat different than the subjective refraction.

The technology of autorefractors is constantly evolving and improving. They are quick and can be run by a technician. We all know that regardless of how good each device may be, they all have their limitations. One of the most obvious is that many autorefractors do not control accommodation well and can easily over minus a patient, especially a child with strong accommodative reserve.

There are many benefits to performing retinoscopy. The retinoscope is much less expensive than an auto-refractor, it is much more portable, and when used with lens bars can be performed in difficult situations; for example: patients in wheelchairs, non-verbal patients, patients with gaze avoidance, and many others. Retinoscopy also provides information that cannot be obtained from an autorefractor. We can detect the scissors reflex from keratoconus, media opacities such as cataracts, and a rapidly changing reflex that indicates fluctuating accommodation. When a patient is struggling through the refraction or the results just are not making sense, we can pick up the retinoscope and can accurately assess their refractive error thus removing the stress and

indecision for both the patient and the provider. Autorefractors are amazing and useful tools, but they cannot replace a good retinoscopy followed by a thorough refraction.

There is a similar discussion regarding incorporating remote care. Technology is allowing us to send a trained technician into difficult areas or regions lacking eye care providers. An eye care provider monitors the data in real time or reviews it later. Remote care can be a wonderful tool, but it should not replace the in-person interaction between the patient and their optometrist.

In our goal to eliminate visual impairment due to uncorrected refractive error, it is important to use all of the tools at our disposal. It is equally important to have well trained optometrists available to all of the world's population to make sure they are getting vision care that goes beyond a simple autorefraction. Every individual deserves vision that is both comfortable and clear from a prescription that is based on their needs and the clinical skills of their optometrist.

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