

The Starting Point

A full suite of autorefractors to start your patients off right

AN INTERVIEW WITH CHARLENE SEIDEL, COT

A patient comes to your office wearing eyeglasses, and another walks in with a cataract. Do you perform different initial tests? Or, have you streamlined your procedures so every patient gets the same testing and the doctor always starts with the same data?

At Jacksonville Eye Center in Jacksonville, Fla., Clinical Manager Charlene Seidel, COT, explains that every patient who goes through the clinic has an autorefraction first. “Sometimes, eyeglasses are 10 years old. Are you going to use something that old, or obtain a reading that is more current? You need to have a starting point,” says Seidel. Because the first step is so important, Marco has developed a suite of autorefractors to meet each practice’s varying needs.

Seek Efficiency

Autorefraction largely replaced retinoscopy. In fact, technicians rarely use retinoscopes, because autorefractors are faster and typically more accurate. In mere seconds, autorefractors obtain multiple measurements and additional diagnostics.

Manual refractors are helpful to refract for an eyeglass prescription, but most practices also have an autorefractor for screening new patients because, as Seidel emphasizes, “It’s the best starting point.”

Offices look to save time wherever possible, and Marco’s autorefractors help to achieve maximum efficiency. “On a busy day, we see more than 100 patients. Whether a patient is in for a complete eye exam, a cataract evaluation, or a yearly checkup, we always perform a quick autorefraction on them to see if their vision has changed at all from prior visits,” says Seidel. “Our ARK-1s takes a series of three or four measurements and averages them per eye, so you can complete the entire measurement in 5 or 6 seconds. It’s very fast and very accurate.”

However, achieving efficiency isn’t only about saving

time; it’s also about obtaining the best possible results. That’s why it’s incredibly important to have the best equipment — from start to finish.

What Are Your Needs?

Part of every eye exam, refractions provide physicians with guiding information to determine what course of action they should take to best serve each patient.

Marco’s suite of autorefractors, as standalone products or within full workstations, meets the needs of all ophthalmology practices. The portable HandyRef-K is suitable for multiple applications, such as satellite office transport, nursing home visits, remote testing, and refractive procedures in the operating room; the comprehensive ARK-1a measures patients with cataracts and IOLs, takes peripheral keratometric measurements, and can show a comparison of unaided visual acuity versus corrected visual acuity to patients. The ARK-1s also includes glare testing to more easily measure patients with cataracts. “Because we have a huge cataract practice, we chose the ARK-1s because of the glare testing. We don’t have the EPIC workstation that has an integrated projector system with phenomenal glare testing, so we chose the ARK-1s,” says Seidel.

All ARK-1 Series products feature super luminescent diode technology to accurately measure patients with cataracts, corneal opacities, and IOLs, as well as post-LASIK patients. These products also utilize multiple pupil zone imaging with rotary prism technology for a reliable refraction starting point. The zonal ring image technology and peripheral keratometry measurements with sagittal radius and eccentricity values are used in corneal evaluations for contact lens fittings and refractive surgery evaluations. For offices treating a younger demographic, the ARK-1a has accommodation testing to detect early presbyopia, latent hyperopia, and reading difficulty in children.

Practices like Seidel’s that already have their own

ARK-Series Product Features



Product Features	HandyRef-K	M3 ARK	ARK-1a	ARK-1s	OPD-Scan III
Super luminescent diode technology	X	X	X	X	X
Automatic Digital	X	X	X	X	X
Measurable range -20D to +25D/Cyl OD to +12D	X	X	X	X	X
Scenery balloon target chart	X	X	X	X	X
"Marco Connect" EMR internet capability	X	X	X	X	X
Handheld portable unit	X				
Automatic "eye tracking" technology Y	X				
Automatic "eye tracking" technology X, Y, Z	X	X	X	X	X
Continuous measurement	X				
Minimum pupil diameter 2.0 mm	X	X	X	X	X
Measurable range -30D to +25/Cyl OD to ±12D		X	X	X	X
Rotary prism technology		X	X	X	X
Non-contact tonometry		X			
Peripheral spherical power -15 to +15D			X	X	X
Peripheral cylindrical power OD to 6D			X	X	X
Auto pupil size measurement 1.0 to 10.0 mm			X	X	X
Auto corneal size measurement 10.0 to 14.0 mm			X	X	X
Double ring technology			X	X	X
Accommodation measurement			X	X	X
Retro-illumination			X	X	X
Low contrast testing				X	X
Glare testing				X	X
Visual acuity chart				X	X
Subjective spherical refinement				X	X
Compare glasses vs. AR reading				X	X
Unaided vision vs. AR reading				X	X
Near vision testing				X	X
Corneal topography					X
Wavefront aberrometry					X

topographers would find the ARK series to be sufficient for their needs. However, for practices looking for a more comprehensive, all-in-one system that includes an autorefractor, the OPD-Scan III could be an ideal choice. The OPD-Scan III integrates AR/AK functionality with other features, such as topography, pupillometry, and wavefront aberrometry.

Find Your Perfect Fit

Seidel says that when selecting an autorefractor, also consider the instrument's ease of use and accuracy. "You want something user-friendly that obtains data quickly and accurately — that's a big selling point for Marco. All Marco autorefractors are incredibly easy to use. I can show someone how to use it one time and they've got it."

A key time-saving feature, Marco autorefractors auto-align, auto-focus, and auto-read. "You just have to get the patient positioned and it does the work for you," says Seidel, who adds that Marco's autorefractors provide very accurate data as long as the patient has relatively good eye health. "You may not get a clear reading if the eye isn't healthy, but it's still a starting point."

In the future, Seidel is hoping to add to the ARK-1s. "Our next equipment purchase, hopefully, will be the whole EPIC system, because it has the autorefractor, digital refractor, lensometer, and projector; it's self-contained, compact, efficient, and fully integrated. It's like driving the Ferrari of ophthalmic refracting." Until then, Seidel loves the speed, accuracy, and glare testing that the ARK-1s provides. ●

Charlene Seidel, COT, is the clinical manager at Jacksonville Eye Center in Jacksonville, Fla.

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