Having always felt it quite natural to have a technology-forward office, I did not object to the shift from manual to digital refraction, per se. I just failed to see the advantages. I assumed the only reason optometrists used a digital refractor was because they had musculoskeletal problems that made it difficult to use a manual device.

In my mind, a digital refractor did not meet my simple criteria for purchasing new equipment. First, any new device must measurably improve patient care, and I did not foresee that outcome with a digital refractor. Second, a new device must provide a good return on investment (ROI), optimally paying for itself within a few years in one of the following ways:

- **Increase billing:** When evaluating the need for digital refraction, I placed great weight on the fact that it did not offer a new procedure code. I thought, *If I bill it the same as a manual refraction, which I perform using existing equipment that is already paid for, then how could it improve revenue? How would it pay for itself? Why buy it?*

- **Boost efficiency:** Optometrists perform so many refractions. Through time, we become quite swift in our ability to obtain an accurate refraction. If digital refraction were significantly faster than my manual process, it would free up time to see more patients, thus increasing revenues. However, I did not see the potential to significantly reduce time. In fact, I predicted that a digital refractor would take the same amount of time as manual refraction — or, potentially, take even more time.

- **Generate more prescriptions:** As an experienced optometrist fully confident in the accuracy of my manual refractions, I thought the digital refraction would simply provide a refraction equivalent to my own, not a better one. Thus, digital refraction held no potential to increase prescriptions or lucrative eyeglass sales.

Eventually, I was persuaded to try a digital refractor. I quickly saw all of my assumptions disproved, one by one, with enhanced patient care and ROI numbers that would entice even the harshest naysayers. The experience has moved me from a skeptic to a devotee of digital refraction.
Willing to Give It a Try
Throughout several years, my sales rep occasionally raised the subject of digital refraction and chipped away at my reluctance. Although I dragged my feet, I was interested enough to stop at the Reichert booth at a conference and look at the Phoroptor VRx.

I had seen other digital refractors in the past, but this one was different. Other devices were big and awkward looking, and switched lenses with a loud clacking sound, but the Phoroptor VRx was pleasantly sleek and quiet. The control interface was more intuitive and felt better, with a layout that facilitated quick work. It also promised to integrate with electronic health records very efficiently.

I decided to go ahead and try one. It felt strange at first — I was used to reaching up 25 times a day with the manual refractor — but I was comfortable using the device in a week. And, in a few months, I had become a skilled user. Today, the Phoroptor VRx has occupied my exam lane for more than a year and a half. Surprisingly, that short time has proven more than long enough to recoup my investment.

Selling Many More Eyeglasses
The new Phoroptor VRx went into one of my two exam lanes. This setup afforded us an excellent opportunity to track ROI in terms of new prescriptions. My staff and I tracked new prescriptions out of both rooms for 6 weeks. During that time, I made 42 prescriptions with the Phoroptor VRx versus 29 with the manual refractor.

Thirteen new pairs of eyeglasses in 6 weeks equates to about 113 pairs per year. Multiply 113 by the $180 margin on frames and lenses, and one Phoroptor VRx brought in $20,340 in the first year, paying for itself in the same extraordinarily short time frame.

Why the big difference? For starters, the Phoroptor VRx provides a more accurate refraction than the manual process, particularly in complex cases, because it has the capacity for sharper refinement. (See “How the Phoroptor VRx Improves Patient Care.”) That means I’m writing more new prescriptions.

Equally important is the device’s ability to instantly show patients their old prescription versus the new one with the touch of a button. This is a very powerful way to show patients that their prescription has changed enough to warrant buying new eyeglasses. My patients often see that and say, “Wow, that looks great! Let’s do that!”

After I collected these prescription numbers, I bought a second Phoroptor VRx for my other exam room. My staff is monitoring our capture rate to ensure we are making the most of the potential for increased eyeglass sales.

Gaining More Time with Patients
Challenging my early skepticism, the Phoroptor VRx did, indeed, work faster than my manual refraction. Subtle things speed up the digital process, such as the device automatically inserting the lens value when I drop down the near chart to check reading power. It also keeps track of the spherical equivalent automatically.

The device has a built-in timer that tells you how long each refraction takes. I timed my manual refractions for comparison and realized that the electronic device saves about
2 minutes per patient, or about 1 hour per week. The efficiency has the potential to change scheduling, although we have not shortened patient visits yet (or trained a technician to perform refractions, which is also possible).

For now, I spend the extra time with my patients. Instead of spinning dials, I talk to patients about their reasons for seeing me and their experiences with reading and other activities. I might get a better idea of whether they would benefit from a second pair of glasses, sunglasses, or lens coatings. We can talk about diet, blood pressure, or other issues that influence their vision as well. It helps me identify problems and ensures that I’m offering the best quality care for each individual patient. Those extra few minutes also come in handy for other work, including tasks related to meaningful use and ICD-10, which take up so much of our time.

Enhancing the Patient Experience

In another boost to the practice — and a “hidden” ROI factor — the Phoroptor VRx improves the patient experience. When patients walk into our exam areas and see a manual instrument that has changed very little in 100 years, it reflects on us. When they see an all-electronic range of modern instruments, they appreciate the difference. By separating us from the competition, the Phoroptor VRx has the potential to help us retain patients and acquire new ones, thus increasing revenues.

Patients prefer the Phoroptor VRx testing experience as well. I explain that the device provides a more precise prescription at a faster speed. It’s the best of both worlds — clearer vision without endlessly answering “1 or 2?” Because

"THE PHOROPTOR VRx PROVIDES A MORE ACCURATE REFRACTION THAN THE MANUAL PROCESS, PARTICULARLY IN COMPLEX CASES, BECAUSE IT HAS THE CAPACITY FOR SHARPER REFINEMENT. THAT MEANS I’M WRITING MORE NEW PRESCRIPTIONS."

Winning Over Skeptics

Before I laid eyes on the Phoroptor VRx, I had made up my mind that a digital refractor was unnecessary in my practice. Now I know what I had been missing. No, a digital refractor did not bring my practice a new billing code. However, it did pay for itself in a year — and continues to boost revenues by increasing prescriptions and efficiency, and enhancing the patient experience. The rule of thumb says that if something pays for itself in 2 years, buy it; and if it pays for itself in 1 year, buy two. That’s exactly what I did with the Phoroptor VRx — and I’ve never looked back.

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