



TELEMEDICINE: HERE TO STAY?



In one form or another, this technology will be a part of our future.

BY JOSHUA DAVIDSON, OD, FSLS, FAAO

In the January/February 2020 issue of *Modern Optometry*, Anthony DeWilde, OD, FAAO, wrote a thought-provoking article entitled “Telemedicine Is Increasing Patient Access to Eye Care.”¹ He analyzed telemedicine and its current role in eye care through an extremely wide lens. Little did Dr. DeWilde, or any of us, realize how telemedicine would be catapulted to the forefront of public consciousness just a few months later. By March, the COVID-19 pandemic had fundamentally altered every aspect of our lives, including the practice of medicine.

Since then, the concept of safe, timely, and, effective health care has become increasingly challenging as eye care practitioners look for any option to protect their own health and that of their staff and their patients. Telemedicine has played an important role in those efforts.

TELEHEALTH

As a refresher, the US Department of Health and Human Services (HHS) states that the definition of *telehealth* is much broader in scope than

that of *telemedicine*. Telemedicine refers specifically to remote clinical services, whereas telehealth encompasses remote health care that does not always involve clinical services.² This includes videoconferencing, the sending and receiving of still images, patient portals, remote monitoring of vital signs, nursing call centers, etc.

Medicaid defines telemedicine as two-way, real time interactive communication between the patient and the physician or practitioner at a distant site.³

The American Telemedicine Association provides a more detailed definition: “Telemedicine is the use of medical information exchanged from one site to another via electronic communications to improve a patients’ health status.”⁴

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AT A GLANCE

- ▶ Telemedicine enables health care providers to remotely and securely interact with patients in real time in order to provide clinical and nonclinical health care services and to monitor their health status.
- ▶ The earliest uses of telemedicine in eye care were in screening for diabetic retinopathy and for retinopathy of prematurity in children.
- ▶ A hybrid model of practice is emerging, in which testing is conducted in person by a technician team and a virtual visit with the physician takes place afterward to discuss the results and pertinent care plans.



TELEMEDICINE'S PRIMARY PLAYERS IN OPTOMETRY

The current landscape of telemedicine platforms.

20/20NOW: This service, marketed to both eye care providers (ECPs) and optical owners, facilitates remote “comprehensive digital eye exams.” An in-office technician completes standard pretesting, digital widefield imaging, and anterior segment biomicroscopy; then refraction is performed by an off-site remote technician. Finally, a optometrist videoconferences remotely with the patient to discuss the exam results and prescription. (for2020now.com)

DIGITALOPTOMETRICS: A teleoptometry model similar to 20/20Now, in which a synchronous digital platform connects patients and ECPs for remote eye exams. An ophthalmic technician performs autorefractometry and anterior and posterior imaging, and then a technician remotely refracts the patient. The exam ends with an optometrist discussing the results via remote video. (digitaloptometrics.com)

DOXY.ME: A web-based platform that requires no apps for either party to download. It involves sharing a personalized room URL with patients to start a meeting. This is what our practice currently uses, and we have been impressed with its ease of use for both patient and provider. This customizable waiting room welcomes your patients and has the potential to engage them with information about you, your practice, and your specialties. Outside of a few hiccups, this service has been extremely smooth. (doxy.me)

EYECARELIVE: A telemedicine platform built specifically for eye care. It allows ECPs and their patients to access each other at any time online (for better or worse) through the download of an app. This allows the patient to send images of his or her eyes, arrange a live video chat, and take multiple vision-specific tests and dry

eye and contact lens surveys. It even solicits a chief complaint. (www.eyecarelive.com)

EYEFINITY EHR: This service allows providers who wish to perform video visits to do so while documenting the exam simultaneously on an iPad app. (www.eyefinity.com/ehr)

GETSETCARE: A telehealth platform developed by EyeCarePro that practices can use for synchronous emergency visits, regular vision therapy and dry eye follow-up appointments, and other ongoing appointments with patients who have chronic ocular diseases and conditions. (www.eyecarepro.com/getsetpro/getsetcare/)

SR TELEHEALTH: Solutionreach offers this secure high-definition video telemedicine tool that is launched directly from a text conversation sent to the patient with links to your preferred third-party telehealth solution or through SR Telehealth. (www.solutionreach.com/telehealth)

TOPCON RDX: This telehealth platform allows users to connect remotely with their office and conduct comprehensive eye exams. Once pretesting, imaging, and exams are completed, results can be discussed virtually with the patient. (topconhealthcare.com/products/rdx/)

GLOBECHEK: Patients go to a kiosk operated by a GlobeChek technician who guides them through the screening process. Testing begins with a visual acuity check; then an autorefractometry is performed; IOP is measured; and external photography, corneal topography, fundus photo, cataract grading, and OCT of anterior and posterior segment are all performed. All tests are reviewed by a certified GlobeChek doctor, and a report is sent to the user with a diagnosis and recommendations for follow-up care. A telemedicine consult is also available to review the findings. (globechek.com)



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TELEMEDICINE IN OPTOMETRY

How does telemedicine fit into the practice of eye care today, and what modes are being used? For years, telemedicine has been used in screening for diabetic retinopathy (DR) and for retinopathy of prematurity (ROP) in children. In DR and ROP screening, images are typically captured at a clinic and then graded digitally by an optometrist or ophthalmologist at a remote site.

This type of modality is commonly known as *asynchronous*, or *store-and-forward*, telemedicine. The American Optometric Association's 2020 position statement defines telemedicine in optometry as "the provision of eye, adnexa, visual system, and related systemic health care services (collectively 'eye, health, and vision services'). Asynchronous and synchronous technologies can be used to provide this type of care, including videoconferencing, internet-based services, store-and-forward imaging, streaming media, and terrestrial and wireless communications."⁵

Another modality, *synchronous telemedicine*, defined as "live 2-way interaction between a person (patient, caregiver, or clinician) and a clinician using audiovisual telecommunications technology,"⁶ experienced an explosion of growth during the nationwide lockdowns mandated to stop the spread of COVID-19. I believe optometry can pair well with this type of telemedicine.

During the lockdown, the US Centers for Disease Control and Prevention's website strongly advocated the use of telemedicine in place of in-person clinical visits. This message was received loud and clear by the eye care profession. Before the pandemic, less than 25% of eye care patients were aware of telemedicine as an option. As the pandemic lingered, leading eye care telemedicine platforms reported incredible growth, ranging from 257% to 700% increases in virtual visits.⁷

These numbers do not include Apple FaceTime and similar video chat

services that are not HIPAA-compliant. These services are nonetheless being used by some providers because HHS has stated that non-HIPAA compliant platforms can be used to accomplish audio and visual communication during coronavirus.⁸ If an eye care practice is looking to establish a foothold in telemedicine, however, I recommend that they do some research and begin by using a HIPAA-compliant program (see *Telemedicine's Primary Players in Optometry*).

I practice in a multidisciplinary center in Louisiana, and I asked one of our ophthalmologists, Blake K. Williamson, MD, MPH, for his opinion on the role of telemedicine in our practice. "At the beginning of COVID, we found telemedicine to be our practice savior, as it was the only way we could see our patients due to government mandates," he said. "But now we have found it to be a practice builder, as it has allowed us to greatly increase our LASIK volume due to the availability of virtual consults and [to increase] our clinic efficiency by offering virtual postoperative visits for refractive cataract surgery patients."

FILLING A NEED

As we become increasingly reliant on imaging technology, telehealth options offer us the ability to review this information and consult with patients in a manner that is convenient for both parties. Although it can't replace the in-person experience, telemedicine is helping many clinics, including ours, find new ways to offer eye care services to patients who prefer to stay home during the pandemic.

The growth of telemedicine in eye care is accelerating, as is apparent from the plethora of companies entering this area of optometry (see *Telemedicine's Primary Players in Optometry*). Many of the biggest players in corporate eye care have made substantial investments in remote eye exam equipment and training. In some markets, patient demand exceeds doctor availability, and remote care can help provide a solution to this problem.

As technology continues to advance and patients become comfortable with the use of telemedicine, it appears that telehealth is here to stay. Many optometrists have adapted to include telemedicine in their practice patterns, and it's up to each doctor to determine which area or areas of telemedicine to incorporate into his or her practice, if any.

As optometry practices have reopened and schedules expanded, some have begun to rely less on telemedicine. Others, however, have noted that, by fine-tuning their telemedicine processes, they can resolve social distancing and scheduling issues, allowing their doctors to space out their schedules so that not all providers and staff are in the office at the same time.

It appears that a hybrid model of practice is emerging, in which testing is conducted in-person by a technician team and a virtual visit with the physician is later performed to discuss the results and any pertinent care plans. Regardless of how you feel about telemedicine, it's important to at least be aware of its potential for the future. If you ignore it, you do so at your own peril. ■

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