

VIEWPOINT

Ophthalmology After Coronavirus Disease 2019 (COVID-19) Transition Back to Patient Care

David W. Parke II, MD
American Academy of
Ophthalmology, San
Francisco, California.

By mid-March of 2020, coronavirus disease 2019 (COVID-19) had upended the professional world of ophthalmologists. It can be argued that the United States should have heeded more effectively the experiences of China, South Korea, Iran, and Italy and entered the pandemic in a less frenetic fashion, but that is not the way it happened. On February 1, 2020, there were 8 US confirmed cases, and 1 month later there were only 30. By March 18, there were 10 442 confirmed cases.¹ On that day, the American Academy of Ophthalmology, following advice from the US Surgeon General and the Centers for Disease Control and Prevention, issued the following guidance language: "Due to the COVID-19 pandemic, the American Academy of Ophthalmology now finds it essential that all ophthalmologists cease providing any treatment other than urgent or emergent care immediately."² It went on to state "All other factors—business, finance, inconvenience, etc.—are remotely secondary. This is an existential crisis."

Never previously in the 124-year history of the Academy has it (with the support of its board of trustees) called for all US ophthalmologists to provide only care that in their judgment was urgent or emergent. Never had it called on the profession to markedly curtail medical commerce with its massive attendant effect on the lives and livelihood of ophthalmologists, their staff, and their families. Most notably, this was an open-ended recommendation; it did not specify when the unrestricted practice of ophthalmology would likely resume.

Based on a survey of Academy members, our colleagues implemented the recommendations.³ All major subspecialty societies in ophthalmology endorsed it, other major specialty societies in other disciplines issued similar guidance, states began shelter-in-place notifications, and the need to conserve personal protective equipment and reduce virus transmission risk became more acute and obvious.

Most practices markedly reduced the volume of office examinations, engaged in telemedicine when appropriate, and performed only urgent or emergent surgical procedures. Many furloughed or laid off staff. Some ophthalmologists were furloughed by their employers, including by private equity (PE) companies.

We now face another novel and complex challenge: reentering a more normal practice of ophthalmology. Much will no doubt be written about the new normal for medicine, but much will not change. Nearly all diseases are the same, and treatments for those diseases are generally unchanged. The basic delivery systems (ie, health insurance, facilities, and health resources) are still in place. But we likely will thrive as professionals only if we recognize those elements that

will evolve. Physicians and patients will now bring different expectations to the clinical encounter.

What else might be anticipated? Some practices will exit the acute COVID-19 period reasonably intact and will be able to offer patient care relatively quickly. However, many have been economically forced to furlough or lay off staff who are important to either the clinical or business side of the practice. These staff may no longer be available to rehire because they have moved, found other employment, or exited the workforce. Some of these practices, hopefully very few, will no longer be viable business entities.

In addition to issues of staffing and access to working capital, physicians in general (and ophthalmologists in particular, as they own smaller practices with high patient throughput) must manage new patient and staff expectations. Based on the recent COVID-19 experience, patients will expect and may demand less crowding in the office and waiting areas, shorter waiting times, line-of-sight access to hand sanitizer and handwashing facilities, more obvious handwashing by professional personnel, greater use of masks and face shields during close examination encounters, and continued use of larger slit-lamp breath shields. Staff may have similar expectations. This will exert secondary pressure on scheduling templates and office architecture. Any residual demand for care will be partially offset by persistent fears of virus transmission.

A novel issue to manage in the transition to post-COVID-19 practice will be testing for the virus and severe acute respiratory syndrome coronavirus 2 antibodies. Until so-called herd immunity is achieved, it will be valuable, and perhaps essential, to know the antibody status of physicians, staff, and patients who are scheduled for procedures. This presumes the widespread availability of reasonably priced and reliable, validated tests.

Other COVID-19-associated issues will evolve over months and years. These will include changes in medical education at all levels involving public health, disaster management, and cross-specialty education. Medical societies, including the American Academy of Ophthalmology, must adapt to provide this and it may become a part of routine facility repriviling.

Insurance markets will change, with renewed attention given to precise contract-specific definitions of force majeure and business interruption insurance. Professional liability insurance will more commonly include clauses to specifically cover telemedical services and disaster-associated professional services outside of a physician's specific specialty and the primary state of medical practice.

The increasing corporatization of ophthalmology practices likely will be changed by the COVID-19 expe-

**Corresponding
Author:** David W.
Parke II, MD,
American Academy of
Ophthalmology,
655 Beach St,
San Francisco, CA
94109
(dparke@aao.org).

rience. Several PE companies furloughed or laid off some of their ophthalmologist employees and recommended they file for unemployment insurance. It may affect the way physicians view PE practice ownership. On the other hand, practices eager for capital and management expertise may be attracted to better-run PE firms with ready access to capital despite lower valuations.

During the COVID-19 pandemic, nonphysician clinicians, including advanced practice nurses, certified registered nurse anesthetists, and physician assistants, have been temporarily permitted to perform certain procedures without physician supervision to expand the workforce surge capacity. Some of these groups are already advocating for permanently extending these regulations.^{4,5}

Ophthalmology has been a national leader in telemedicine augmented by technology and artificial intelligence. On March 30, 2020, the US Centers for Medicare & Medicaid Services released temporary regulatory waivers and issued new rules for virtual visits using online applications for billable telemedical services.⁶ Such low-technology solutions may be one mechanism to assist with decompressing an office schedule in the post-COVID era. We can anticipate accelerated interest in patient-facing monitoring devices, rapid point-of-care diagnostics, electronic health record-linked applica-

tion programming interface development, and artificial intelligence-fueled analytics.

Finally, research into coronaviruses will be prioritized in the coming months. It may also be accompanied by changes in US Food and Drug Administration regulations to permit more rapid clinical trials and approval pathways. This will be relevant not just for drug and device approval but also for testing kits and vaccine development. Within ophthalmology, we may see not only the ophthalmic implications of these changes but also renewed interest in population-based research in topics as diverse as preocular tear film viral transmissibility and in social determinants of eye health. Throughout all of medicine there will be scrutiny of issues, such as sole sourcing of critical drugs and devices and incentivizing the domestic production of key molecules.

The initiation into the COVID-19 pandemic was relatively sudden and very tragic. It was also massively disruptive to the practice of ophthalmology. Our profession soon will be exiting the acute phase of the pandemic and recommencing a fuller spectrum of patient care. Success will depend in part on recognizing and managing the scientific changes introduced by COVID-19 and the accompanying societal expectations for rapid evolution in health care delivery.

ARTICLE INFORMATION

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