

Invited Commentary

Insights Into Eye Care Practice During COVID-19

Angela R. Elam, MD; Joshua R. Ehrlich, MD, MPH; Paul Lee, MD, JD

2020 Started as a year of celebration for the tremendous advances in ophthalmology that would make the promise of 20/20 visual acuity a reality for more people worldwide. Yet, our conventional perspectives have changed owing to changes following the coronavirus disease

+
Related article

2019 (COVID-19) pandemic on societies around the world, its disparate outcomes in Black and older individuals in the US, and the changes in eye care practices that were associated with steps designed to control the spread of the virus.

With the known and unknown risks of COVID-19 to patients and to health care teams, the predictions of multiple models, and the experience of overwhelmed hospital systems in Wuhan, China, and Northern Italy, the US Centers for Disease Control and Prevention and the American Academy of Ophthalmology¹ recommended in mid-March 2020 that physicians, including ophthalmologists, limit in-person care to urgent and emergent patients while assuming use of appropriate personal protective equipment. This heightened concern was paralleled by patient fears, with the perception that many were opting to not pursue care for even urgent or emergent ophthalmic concerns. The cumulative effect of these delays on visual outcomes is not yet known, although it is estimated that there was a nearly 80% initial decrease in ophthalmology visits² and that as of mid-June there was still a cumulative decrease in ophthalmology visits of 40%.³

Minimizing further loss of vision and its effect on patients and populations obviously requires the resumption of more regular eye care. We would benefit from a thorough understanding of how to ramp up eye care, both to describe lessons learned from COVID-19 and for insights relevant to potential future pandemics. In this issue of *JAMA Ophthalmology*, Starr et al⁴ provide data related to these issues by exploring practice patterns for common ocular complaints among comprehensive ophthalmology practices in the US during the initial phase of the COVID-19 pandemic in North America. Using a prepared but not validated script, the authors made telephone calls with simulated patient requests for cataract surgery evaluation, routine refraction, and new-onset flashes and floaters (posterior vitreous detachment) roughly 6 weeks after the initial shutdown in most regions of the country and during a time (April 29 and 30, 2020) when many parts of the US were actively opening or preparing to open their practices to patients beyond urgent and emergent patients.

Among 40 private and 20 university comprehensive ophthalmology practices from 4 regions in the US, private practices were more likely to schedule all patients (not just those with urgent complaints), had shorter wait times for appointments for cataract surgery evaluations, and were more likely to be available to evaluate patients with flashes and floaters. University practices were more likely to mention preparations to limit the spread of COVID-19. It might be helpful to

know if there was a relationship, if any, of the various parameters used to track the virus, including the various total cases, cases per capita, percent positivity rate, hospitalizations, ventilator use, and deaths, which can vary not only by state over time, but also by county.

This study provides insight with point estimates into how different practices in different environments and regions implemented changes in patient care to adapt to COVID-19. It is reassuring to see that most practices (60% of private and 85% of university practices) adhered to the recommendations of the Centers for Disease Control and Prevention, state governments, the American Academy of Ophthalmology, and other professional organizations. Fifteen of 60 practices (35% of private and 5% of university practices) were open to scheduling all patients at the time the study was conducted in late April. Four comprehensive practices were closed (5% of private and 10% of university practices), although the confidence of how that estimate relates to the universe of US practices is not provided. It would be interesting to further explore these variations in practice openings and availability. In this sample of practices, the only regional difference detected was that practices in the South were more likely to schedule patients for all services and to see cataract surgery patients sooner. It is noteworthy that appointments for issues other than posterior vitreous detachment symptoms were being scheduled well into the future, meaning it is likely that, as the authors noted, practices were compliant with the recommendations of the American Academy of Ophthalmology and Centers for Disease Control and Prevention by scheduling nonurgent concerns for dates when they believed it would be more appropriate to return to providing more routine eye care.

On the other hand, one notable finding was that many practices did not offer an appointment for patients with new onset of symptoms of posterior vitreous detachment. Referring patients to the emergency department in this situation only shifted the responsibility to another colleague while potentially exposing the patient and the colleague(s) to the risks of contracting or transmitting COVID-19 in an emergency department setting. As noted by the authors, there are many reasons why this may have been the case, but it would be important for practices to assess ways of enhancing their response to this situation in the future.

The authors also found that 17.5% of private practices and 15% of university centers were offering telemedicine services, although the effect of these services on outcomes currently is unknown. It was unclear if the frequency of telemedicine visits was due to the nature of the scenarios presented in this study (refractive error, cataract evaluation, and possible posterior vitreous detachment) or if there were alternative explanations. If it is indeed the case that many practices were not offering any form of telemedicine, this is consistent with data that Woodward et al⁵ reported, demonstrating that most

ophthalmologists had low confidence in the use of telemedicine for eye care prior to COVID-19.

Viktor Frankl said, "...Between stimulus and response, man has the freedom to choose."⁶ While these are challenging times for all, we as a profession have a substantial opportunity to build on our adaptations to further develop innovative approaches for care outside of our offices, in patient homes, and

other community settings. In doing so, we may also realize the promise of population health approaches to make eye care available to underserved populations, reducing inequities in access to care and disparities in vision loss and blindness.⁷ It is in our response to COVID-19 and how we engage in care for our patients going forward that we can realize even more the full promise of 2020.

ARTICLE INFORMATION

Author Affiliations: Department of Ophthalmology and Visual Sciences, WK Kellogg Eye Center, University of Michigan, Ann Arbor.

Corresponding Author: Paul Lee, MD, JD, University of Michigan, Ophthalmology and Visual Sciences, 1000 Wall St, Room 8055A, Ann Arbor, MI 48105 (pleemd@med.umich.edu).

Published Online: August 5, 2020.
doi:10.1001/jamaophthalmol.2020.3244

Conflict of Interest Disclosures: Dr Lee reports serving on the advisory board of Hoskins Center for Safety and Quality and the American Academy of Ophthalmology Foundation. No other disclosures were reported.

REFERENCES

1. American Academy of Ophthalmology. Recommendations for urgent and nonurgent

patient care. Published March 18, 2020. Accessed July 8, 2020. <https://www.aaopt.org/headline/new-recommendations-urgent-nonurgent-patient-care>

2. Mehrotra A, Chernew M, Linetsky D, Hatch H, Cutler D. The impact of the COVID-19 pandemic on outpatient visits: a rebound emerges. Commonwealth Fund. Published May 19, 2020. Accessed July 9, 2020. <https://www.commonwealthfund.org/publications/2020/apr/impact-covid-19-outpatient-visits>

3. Mehrotra A, Chernew M, Linetsky D, Hatch H, Cutler D. The impact of the COVID-19 pandemic on outpatient visits: practices are adapting to the new normal. Commonwealth Fund. Published June 25, 2020. Accessed July 9, 2020. <https://www.commonwealthfund.org/publications/2020/jun/impact-covid-19-pandemic-outpatient-visits-practices-adapting-new-normal>

4. Starr MR, Israilevich R, Zhitnitsky M, et al. Practice patterns and responsiveness to simulated

common ocular complaints among US ophthalmology centers during the COVID-19 pandemic. *JAMA Ophthalmol*. Published online August 5, 2020. doi:10.1001/jamaophthalmol.2020.3237

5. Woodward MA, Ple-Plakon P, Blachley T, et al. Eye care providers' attitudes towards tele-ophthalmology. *Telemed J E Health*. 2015;21(4):271-273. doi:10.1089/tmj.2014.0115

6. Covey SR. *The 7 Habits of Highly Effective People: Powerful Lessons in Personal Change*. Rosetta Books; 2013;77.

7. National Academies of Sciences. *Engineering and Medicine: Making Eye Health a Population Health Imperative: Vision For Tomorrow*. National Academies Press; 2016:xvii.