VIEWPOINT: COVID-19

The Roles and Challenges of Facial Plastic Surgeons in Pandemics

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We are in uncharted territory with an unknown foe. A global novel coronavirus (COVID-19) pandemic is spreading rapidly, not only upending the lives of millions, but also claiming the lives of many, including physicians, around the world. This is a trying, uncertain time for all health-care workers, especially physicians, emergency department personnel, primary care offices, and intensivists on the frontline. To worsen matters, scientific data are significantly lacking; information is more likely to be obtained via social media posts than public health or infectious disease experts.

As global “stay at home” restrictions grow, facial plastic and reconstructive surgeons (FPRS), plastic surgeons, dermatologists, and oculoplastic surgeons are feeling displaced and on the sidelines of the fight against coronavirus. Beyond the limitations that local, state, and national governmental agencies have instituted, FPRS ought to consider the short- and long-term impacts to our specialty.

First, most FPRS are trained in otolaryngology—head and neck surgery (OTO-HNS), and many still employ elements of OTO-HNS in their practice. As such, it is important to realize that FPRS are at increased risk of contracting COVID-19, as has been the case in similar past pandemics.^{1–3} Many “aerosol-generating” procedures and surgeries such as nasal/sinus surgery, intubation, tracheostomies, and flexible fiberoptic laryngoscopies performed by FPRS and OTO-HNS place physicians and their staff at greater risk of contracting the virus.^{1–4} In a recent study published in the *New England Journal of Medicine*, the amount of time the virus particle is viable in aerosols is at least 3 hours.⁵ The nasal cavity has been found to have a disproportionately large viral load with increased risk of transmission.^{2–6} In China, Chan et al. detailed the use of personal protective equipment (PPE; i.e., N95 masks, gowns, caps, eye protection,

gloves, etc.) and patient screening protocols (i.e., travel histories, patient temperature on arrival, etc.) with all patients in order to help protect physicians from contracting the viral infection.¹ Hence, as FPRS, we have an ethical obligation to take the threat of transmission seriously and minimize unnecessary contact with others, including patients, so that we are not inadvertently serving as disease vectors,^{6,7} if not for our own sake then for the sake of our families and patients.¹

Moreover, at the time of writing, many states, cities, and surgical societies are either banning or recommending the suspension of all non-essential services.^{3,8} The American Society of Plastic Surgeons⁷ and American Academy of Facial Plastic and Reconstructive Surgery⁶ have also recommended that surgeons “cease providing any elective or non-essential services.”⁷ While the degree to which this affects individual FPRS will vary based on practice and municipality, it undoubtedly impacts all FPRS. Despite the economic implications of such policies, experiences in China and abroad suggest that suspending non-essential care is the right thing to do to help slow the contagion.^{1,2} Moreover, abiding by these recommendations will also help the nation conserve PPE and medical resources needed to alleviate the strain on the health-care system.

Since this pandemic may stretch for months, FPRS must begin to consider what surgeries should be considered essential during the ongoing battle with COVID-19. Surgeries to repair facial trauma, cutaneous and head/neck cancer defects, congenital cleft lip/palate, and certain facial nerve procedures are not life threatening but may be time sensitive. Earlier intervention in such cases can both improve outcomes and prevent unnecessary lifelong repercussions. As the supply chain for medical resources and COVID testing improves, restrictions may be eased. However, the impact on elective cases

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and cosmetic surgeries remains unknown. The pandemic may alter society's acceptance of using limited resources on procedures deemed medically unnecessary.

In addition to our role in complying with regulatory restrictions, we should examine our function as physicians within this evolving epidemic. Community-based FPRS may help control the virus. For instance, outpatient clinics and freestanding Ambulatory Surgery Centers (ASCs) may divert resources and supplies to aid in public health efforts.⁹ Currently, FPRS are working to deploy their privately owned anesthesia machines/ventilators to hospitals in need. Others have suggested funneling patients with non-COVID complaints (e.g., facial trauma, epistaxis, etc.) to freestanding ASCs and clinics to help relieve the burden on overrun emergency rooms, as well as reduce the exposure of non-COVID-19 patients.⁹ Academic and hospital-based FPRS must consider what steps can be taken to reduce the stress on our health-care system and minimize provider exposure to the virus while performing complex free tissue transfer for head/neck cancer defects. For instance, FPRS could consider how they can modify postoperative care to reduce intensive care unit stays, flap checks, and overall hospitalization in order to minimize use of hospital resources and still ensure patient and provider safety. As FPRS, our unique training in facial plastics, OTO-HNS, and general surgery makes us well equipped to care for diverse maladies from airway management to trauma. In a scenario where the nation faces a shortage of qualified physicians/surgeons, FPRS should feel empowered to volunteer to assist in times of public health crisis.

Although the dust has not yet settled, we should also view our actions in the lens of how we can learn from this experience. In a time when tremendous technology is easily accessible, we must improve our communication channels to help relay information in real time. Many of our colleagues in China, Iran, and Italy sent alarming signals to deaf ears. With improved communication, it is possible that the response to this pandemic may have been improved globally. Moreover, we should consider creating a task force of international, academic, and private FPRS to work toward solutions and build guidelines for not only this pandemic but also for future crises that may arise. Our specialty may also benefit from the creation of a centralized source to collate the most up-to-date news and guidelines regarding COVID-19 (and future disasters) as it pertains to FPRS. Evidence-based information is lacking, and FPRS have a remarkable opportunity to work together to be at the forefront of providing accurate and timely information.

Finally, as an academic specialty, FPRS must also consider the implications of this crisis on fellowship training and the fellowship matching process. Understanding the role and safety of residents and fellows in caring for patients during this time is critical, especially

given the desire to minimize exposure and preserve the physician work force.

In summary, this is an unprecedented time. Policies are constantly changing, with many guidelines still unclear. Unfortunately, the situation will likely worsen. The crux of the issue is how we appropriately balance physician safety, the care of our patients, and public health needs. We should learn from the experiences of other countries such as Iran, Italy, Spain, and China. To ignore the advice and lessons from our international colleagues (some of whom sadly succumbed to the virus) seems unwise.² In short, this writing is not intended to provide firm suggestions or guidelines. Rather, we have summarized the current state of affairs with the hope of spurring discussion regarding ways FPRS may contribute to this public health crisis, as well as be prepared for future disasters. Our priorities should be to develop safety standards that protect physicians, patients, and colleagues; to be creative in our utilization of unused medical facilities; to mobilize available resources toward areas in need; and to be ready as a unified medical society to assist the strained health-care system in novel ways.

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