

# Telemedicine in the Era of the COVID-19 Pandemic: Implications in Facial Plastic Surgery

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The global COVID-19 pandemic has placed unprecedented restraints on resource allocation and patient care. The rapidity with which the pandemic has spread has resulted in the depletion of hospital resources and increased health expenditures.<sup>1</sup> Additionally, the risk of occupational exposure for health care providers poses a significant barrier to the delivery of timely and effective patient care. Otolaryngologists, including facial plastic surgeons, are particularly at risk given the increased viral load within the upper aerodigestive tract and the aerosol-generating procedures performed.<sup>2</sup> Many medical organizations have responded by deferring elective cases and ceasing of nonessential services. Various evidence-based guidelines have been published regarding practice modifications during this time of pandemic, and the literature is continually evolving.<sup>3</sup> However, little is known regarding the length of time for which these precautions may be implemented. Physicians are therefore faced with the difficulty of complying with new regulatory restrictions while attempting to provide patient care.

While it is important to mitigate risk of infection and further spread of this contagion, safe patient care must continue to be prioritized. This is difficult in the outpatient facial plastic surgery setting in which in-person evaluation and consultation is often instrumental in management. In light of this, alternative approaches toward care must be employed. Telemedicine, the provision of clinical services via the use of communication technology between patient and provider, is one such resource that may be effectively implemented during this time. Telemedicine may refer to transfer of static images or video between patients and physicians via mobile devices or the use of audiovisual telecommunications software to facilitate correspondence in real time.<sup>4</sup> Implementation of such services has become progressively feasible with the corresponding increase in availability of smartphones, webcam-enabled personal computers, and high speed internet.

The utility of telemedicine has previously been demonstrated in addressing health-care inequities in rural

communities or during public health emergencies.<sup>4</sup> In response to the current pandemic, the Centers for Medicare & Medicaid Services, as well as most commercial health plans, have amended policies including waiving co-pays in order to encourage utilization of telemedicine services. However, barriers to broad implementation of such services continue to exist, including equipment costs, provider training, and licensing as well as payment and regulatory services. Additionally, ethical considerations such as Health Insurance Portability and Accountability Act compliance must be taken into account. Although establishing these programs in an acute setting poses difficulties, many hospital-based health systems have leveraged already existing telemedical platforms in their response to COVID-19.<sup>4</sup> Community-based facial plastic surgeons lacking immediate access to such programs may outsource telehealth services to providers such as American Well or Teladoc Health. These platforms provide synchronous real-time audiovisual-enabled visits and are easy to use for patients, providers, and staff scheduling appointments, allow for patient connectivity via computer, tablet, or smart phone, and abide by patient privacy laws.

During the COVID-19 pandemic, additional professional evaluation and management codes have been approved for telemedicine visits. Physicians must obtain patient consent for the visit (often automated in existing platforms); document the type of visit (e.g., phone visit, synchronous face-to-face video visit, etc.); location of physician and patient; confirmation of identity; and components of the evaluation and management service performed. One key limitation is the ability to perform a comprehensive physical exam (palpation, intranasal or intraoral exam, scope evaluations, etc.). Due to this limitation, telemedicine visits are often billed based on the time spent with the patient, documenting the amount of time spent on counseling and coordination of care.

Facial plastic surgeons are encouraged to familiarize themselves with the most effective means of integrating

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telemedical technology within their specific practice setting. For example, live teleconsultation requires coordination of patient and provider schedules, audiovisual equipment with the capacity to stream in a seamless manner, and access to high speed internet. This may be best utilized for initial consultations, in the postoperative settings to evaluate surgical site healing and patient concerns, or during more urgent issues to screen patients to determine whether they need an in-person evaluation. However, a more economical means of telecommunication, store-and-forward telemedicine, may be employed in nonurgent settings or when providers are not readily available.<sup>4</sup> Store-and-forward telemedicine allows accumulation of relevant patient data, such as patient complaints or physical findings, through transfer of static images or stored video, which can be transmitted to the receiving consultant to review at a later time. This type of consultation may be most appropriate when implemented in nonurgent scenarios or routine patient follow-up.

In our practice, initially only postoperative and follow-up patients would send photos and videos attached to a description of how they feel they are recovering. After review, patients were messaged electronically or set up for either a phone or urgent in-person visit based on the need. It was assumed that most facial plastic surgery patients would not be appropriate for telemedicine. However, our system transitioned to live visits via Zoom and now the American Well platform. We have found that many patients are happy with the experience and appreciate the continuity of obtaining care without having to risk their health by leaving the home during the pandemic. Currently, most patients are seen by synchronous real time audiovisual visits, including initial consultations and follow ups for cosmetic surgery, rhinoplasty, trauma, and cancer reconstructions. Through these platforms, there is also the ability to provide multidisciplinary care. For example, many patients in our facial nerve clinic are being seen during the same session by both the physician and facial therapist. Currently visits that are being deferred are those requiring a procedural component (e.g., chemodenervation, filler, scopes, etc.). Patients requiring urgent evaluation are still being seen in person with donning of appropriate personal protective equipment.

Although it is not meant to replace in-person medical care, telehealth allows for mitigation of patient and provider exposure to potential contagions by facilitating compliance with home quarantine. Telemedical resources may also be used in the postoperative setting in order to reallocate hospital resources, decrease critical care utilization and overall hospital stay. Telemedicine has previously been employed within the scope of plastic surgery in the setting of flap monitoring<sup>5</sup> and maxillofacial trauma.<sup>6</sup> In

patients that require extensive postoperative care, such as those undergoing free tissue transfer, programs implementing electronic intensive care unit monitoring may streamline patient care and facilitate the redistribution of health care workers and resources to more deplete areas.<sup>5</sup> At this time of large-scale home quarantine, concerns regarding workplace capacity and limitation of subspecialty care may be addressed through application of telemedical protocols as well. These resources may provide rapid access to a facial plastic surgeon for triage of patients with craniomaxillofacial trauma, postoperative complications, or other potentially life-threatening conditions.

In summary, telemedicine represents an invaluable tool for facilitating safe and timely patient communication and delivery of health care services for the facial plastic surgeon. While limitations exist, specifically with respect to the capacity to perform comprehensive physical exams or procedures, a generalized consultation with overview of patient concerns, and postoperative findings may be reasonably performed. This may allow for further triage in determining the acuity of concerns necessitating early intervention as well as a decrease in overutilization of health care resources. Physicians are therefore encouraged to familiarize themselves with telemedicine services, available vendors, and reimbursement protocols as detailed in the Centers for Medicare & Medicaid Services Telehealth or Telemedicine Tool Kit.<sup>7</sup>

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