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Aesthetic Office Disaster Preparedness and Response Plan

Joel L. Cohen MD,[a] Steve H. Dayan MD,[b] Mathew M. Avram MD,[c] Renato Saltz MD,[d] Suzanne Kilmer MD,[e] Corey S. Maas MD,[f] Joel Schlessinger MD,[g] and the Cross-Specialty Allergan Aesthetics Preparedness Advisory Panel

[a]AboutSkin Dermatology and DermSurgery, PC, Greenwood Village, CO

[b]Division of Facial Plastic and Reconstructive Surgery, Department of Otolaryngology, Chicago Center for Facial Plastic Surgery, University of Illinois at Chicago, Chicago, IL

[c]Dermatology Cosmetic and Laser Center, Massachusetts General Hospital, Harvard Medical School, Boston, MA

[d]Adjunct Professor of Plastic Surgery, University of Utah, Salt Lake City, UT

[e]Laser and Skin Surgery Center of Northern California, Sacramento, CA

[f]The Maas Clinic Facial Plastic and Aesthetic Surgery, San Francisco and Lake Tahoe, CA

[g]Skin Specialists, PC, Omaha, NE

ABSTRACT

The coronavirus pandemic (COVID-19) has served as a call-to-arms in preparing practices for the next disaster whether it is another infectious disease or a flood, hurricane, earthquake, a sustained power outage, or something else. A group of predominantly core aesthetic physicians discussed the various aspects of their office procedures that warrant consideration in a proactive approach to the next pandemic/disaster-related event. This guide does not set a standard of practice but contains recommendations that may avoid some of the "lessons learned" with the COVID-19 pandemic. In this paper, the board-certified core aesthetic physicians classified these recommendations into four generalized areas: Practice Management; Supplies and Inventory; Office Staffing Considerations and Protocols; and Patient Management Strategies. Proactive strategies are provided in each of these categories that, if implemented, may alleviate the processes involved with an efficient office closure and reopening process including, in the case of COVID-19, methods to reduce the risk of transmission to doctors, staff, and patients. These strategies also include being prepared for emergency-related notifications of employees and patients; the acquisition of necessary equipment and supplies such as personal protective equipment; and the maintenance and accessibility of essential data and contact information for patients, vendors, financial advisors, and other pertinent entities.

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INTRODUCTION

Our lives have changed significantly during 2020. The Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), the causative agent for coronavirus disease 2019 (COVID-19), has resulted in many of us having lost loved ones; experiencing bouts of isolation, loneliness, and depression; and wondering about our personal and business-related financial obligations and future. The suddenness of our office closures and uncertainty/geographic inconsistencies in reopening has caused anxiety among our staff and patients. Physicians remain hopeful that the financial implications of the "lockdowns" and practice restrictions are neither long-lasting nor irreversible. This "crisis" does serve as a call-to-arms for implementation of emergency preparedness and response strategies to ready our practices for the future.

Challenges faced in the COVID-19 response included many having limited training in emergency preparedness and response, the lack of supply of personal protective equipment (PPE) that included masks and hand sanitizers, etc. Many practices reported being woefully unprepared for even the simplest of tasks and necessary procedures associated with the COVID-19 lockdown.

As office practice restrictions move toward reopening, many continue to be unprepared or uncertain as to how to orchestrate this stage of the process. Few emergency-scenario guidance documents for closure and reopening were available to advise practitioners prior to the COVID-19 pandemic. The recently published Project AesCert Guidance Supplement outlines a practical guide to safety considerations to support clinic preparedness for patients seeking nonsurgical aesthetic treatments and procedures following the return-to-work phase of COVID-19.[1] In addition, the report on recommendations for cutaneous and aesthetic surgeries during COVID-19 provided helpful information on performing procedures including the proper use of hand sanitizer, wearing and removal of N95 masks, and other PPE precautions.[2] However, there still exists a need to guide office practices on how they can proactively

TABLE 1.

Summary of Recommendations for Emergency Preparedness and Response	
Practice Management	**Specific Items for Consideration**
Office Record Policies and Procedures	• Routine back-up (2 methods) of all office- and practice related records • Remote access to all office- and practice related records • Access to hard-copy information critical to office procedures including all log-in information and passwords • Current listings/details for all insurance contacts, supply/inventory vendors, local and national guidance agencies (eg, CDC, FEMA, etc) • Preferred contact details for all employees • Prepared statements suitable for social media or other forms of dissemination regarding office closure and reopening
Financial Considerations	• Good understanding of key performance indicators and back-up plan for employees that may become unable to perform procedures • Access to cash reserves and/or adequate financing in cases of emergency • Alternatives to in-clinic visits for revenue stream (eg, on-line product availability)
Supplies and Inventory	
General Supply/ Inventory Practices	• Monitor and replenish supplies and inventory routinely and frequently • Keep log of quantities and, if applicable, expiration dates • Consider generator to maintain electrical supply for refrigeration units • Have access to battery-powered lights (and additional batteries) • Maintain digital and hardcopy listing of all office-related items in staff possession (ie, keys, electronic equipment, office items)
Personal Protective Equipment and Other Emergency-related Items	• Have a 3- to 6-month supply of PPE • PPE includes a variety of items including face masks/shields, gloves, shoe covers, head caps, hand and surface sanitizers • Ancillary emergency-related items include thermometers, questionnaires regarding patient health, and trash bags for contaminate disposal, and air filtrations systems (HEPA) including replacement filters • The benefits/risks of bacteriocidal mouthwashes and nasal sprays may be considered but have not yet been proven • Have sufficient amounts of masks available for patients who present without them
Adjunctive Infection Control Measures	• Adjunctive infection control measures such as HEPA filtration with ready access to replacement filters should be considered • Medical grade smoke/plume evacuators may be warranted especially in cases of procedures being performed close to the mouth/nose and requiring patients to remove their mask
Office Staffing and Patient Considerations and Protocols	
Office Staffing Considerations	• Back-up personnel trained to cover critical positions in case of key staff member(s) absence • Have designated "second-in-command" personnel in case of emergency(ies) • Digital and hardcopy listing of all staff members contact details and emergency contacts • Policies regarding "furlough" versus "tiered" layoffs should be in place • Adequate sick time for ill employees should be in place with a zero-tolerance for ill individuals to return-to-work • Staff awareness of mental health stress, strain, and burnout among coworkers should be emphasized
Patient Management Strategies	
Communications and Contact Tracing	• Develop pre-written communications suitable for patient contact regarding office closure and reopening, practitioner unavailability or other events/scenarios • Have virtual appointment capabilities including remote access to patient records • Be prepared for office reopening including staffing considerations, PPE availability, staggering of appointments, credit card/ other payment options • Have ability to monitor patient/staff exposures for contact tracing in cases of infectious disease exposures

prepare for future emergency situations, regardless of origin, as well as offer guidance for a safe and efficient office reopening.

A group of predominantly core aesthetic physicians convened over many webinar sessions to discuss various aspects related to office procedures that should be considered proactively and to guide clinicians in reopening their offices. These proactive procedures have applicability to a variety of emergency scenarios (eg, pandemic, fire, earthquake, electric grid failure, water shortages, rain, hurricane, tornado, flooding, etc.). Unfortunately, there are no standards for equipment, procedures, and practices for aesthetic offices to follow in anticipation of or following emergency situation(s).

This advisory guide is meant to provide aesthetic physicians and their staff with a practical approach for practice management, staffing, supplies and inventory, and patient management. This guide does not set a standard of practice, but rather recommends office-related goals that may avoid the loss of information (eg, contact details, passwords), improve patient communications (eg, through prepared media-related information), and enhance the transition from office closure to reopening for both the staff and the patients. We are hopeful that this provides at least a template of items for consideration and implementation across the various practice situations and emergencies and mitigates the reoccurrence of difficult lessons learned from the COVID-19 pandemic.

Overview of Closure and Reopening Processes

Many office practices were ill-prepared for the urgency and abruptness of the COVID-19 related responses. This included the most basic tasks of determining essential versus optional staff members, informing patients of canceled appointments and office closure, and creation/implementation of social media announcements. As the restrictions eased and were reimposed in various geographic locations, this became an even more complicated and fluid situation adding to the complexity of the situation.

Many have reported that during the reopening process, they have been inundated with the backlog of patients requiring urgent appointments for medical treatments. Coupled with individuals weary of a long period of quarantine and are viewing the "work at home" scenario as the ideal time to consider aesthetic options, office staff are feeling overwhelmed by client demand. These situations are compounded by a staff or some isolated staff that may be reluctant to return to work, the risk-mitigation processes required to obtain sufficient amounts of PPE, and scheduling practices to allow enough time between appointments for room disinfection and cleaning. Following a prolonged period of closure, the staff may appear a bit "rusty" and will likely require extra time to become comfortable in their work environment. In addition, to protect staff as well as patients we are obligated to limit the number of persons, including caregivers and family members, in the examination/treatments rooms.

The following sections provide guidance in four generalized areas. These are: Practice Management that includes guidance regarding office record practices and procedures and financial considerations; Supplies and Inventory that focuses on the need to maintain PPE and adjunctive infection control measures; Office Staffing Considerations and Protocols to minimize staff disruptions; and Patient Management Strategies that involve notifications of office closures and reopening procedures.

Practice Management

In the case of COVID-19, practice management included gating decisions of when it was permissible and prudent to reopen. This was informed by applicable federal, state, and local government mandates, which also determined the permissibility of certain greater contagion-risk procedures. For future emergency situations, practices should consider, at a minimum, their local government mandates for office procedure guidance. The following sections summarize selected practice management policies and procedures that may ease the process of office closure and reopening.

Office Record Policies and Procedures

Good office medical record policies and procedures include the routine back-up and remote accessibility to all office records including appointments, patient files and photographs, and other critical information and documents. It is advisable to have two methods of data/information back-up with one being on-site and one being off-site/cloud storage. It is also advisable to have hard-copy versions of critical information in cases of internet/electrical failures.

The office lead administrator should maintain a complete listing of all log-in information and passwords needed for access to various sites. This includes social media sites and other web-related office information (eg, email account passwords and account numbers).

A current listing of all office insurance policy contacts (eg, liability, umbrella, medical malpractice, personal property, etc.) for prompt notification in cases of emergency should be readily accessible. The vendor(s) for PPE and other emergency supplies should be included in this contact listing. Contact details for local, national, and international colleagues who may be able to assist in situations of personnel shortages, answer questions, or provide other types of information/guidance, may be helpful. To provide disaster-related information and guidance, contact details for reliable sources such as the Centers for Disease Control and Prevention (CDC), state and national agencies such as FEMA (federal emergency management agency), DPH (department of public health), DOL (department of labor), etc. and other relevant information sources are essential.

Emergency office closure situations demand prompt notification to staff, patients, and vendors. Offices should maintain a current listing of staff members, their preferred contact information, and, if possible, emergency contact information. Using social media or other types of contact, it is often helpful to have a set of pre-written office-related information that can be quickly disseminated to affected entities. For patients, the prompt and regularly updated information will assist in reengaging patients following resolution of the situation (e.g., website, social media, outgoing phone message).

Financial Considerations

The COVID-19 crisis has had a significant negative impact on clinical practices with some closing permanently and others suffering potentially irreversible financial hardship. Financial survival is clearly a major challenge. Physician owners should have a good understanding of their key performance indicators (KPI) and the metrics related to cash flow and cash reserves. If possible, there should be a plan for on-line generation of revenue (ie, product sales through practice website) and other potential revenue streams to supplement the inability to perform aesthetic procedures and see patients in-clinic.

The practice lead administrator/physician owner should have a close relationship with the financial institutions that are able

to provide financing in cases of prolonged office closures and staffing needs. In the case of COVID, these relationships were key in the acquisition of the Payroll Protection Program (PPP) funding. In addition, the practice should have an emergency financial reserve of approximately 6 months of anticipated operating expense funds. This will ensure financial solvency for the practice and the staff in cases of prolonged office closure/limitations.

Supplies and Inventory

The availability of sufficient supplies and inventory are critical to the reopening process and performance of procedures. In general, offices should maintain adequate reserve of all necessary supplies and inventory items, especially those that tend to have limited availability.

The following sections describe practices that are helpful in both generalized supply and inventory management as well as for specific items that may be necessary in emergency situations. Adequate supplies of PPE and adjunctive practices that may reduce exposure (eg, ventilation and filters) assist in working conditions and occupational safety among the staff and may ease their ability to resume their in-clinic responsibilities.

General Supply/Inventory Practices

Implementation of routine (eg, weekly/monthly) supply and inventory monitoring (that may include photographing) that includes quantities and, if applicable, expiration dates, will assist in both office management as well as in cases of emergency closure and reopening. These listings can be extremely beneficial in cases of prolonged office closures during which the products reach/exceed their expiration dates and may allow an easier/expedited manufacturer product exchange process. As mentioned previously, it is imperative to keep an up-to-date listing of preferred suppliers for essential office- and patient-related supplies and inventory.

Inventory practices should also include provisions in case of energy failures. Specifically, the availability/back-up plans to ensure continuous proper (eg, refrigerated) storage of products. Refrigerators and freezers with temperature excursion alarms are standard for offices doing clinical trials. However, these units should be considered as a precautionary measure in the storage and protection of supplies such as botulinum toxins, hyaluronidase enzymes, and other agents that require refrigeration/freezing. As a further precautionary measure, an in-office generator may warrant consideration to ensure that refrigeration/freezing units are kept operational in case of a power failure. Battery operated light sources should also be available in the office in case of power outages that occur during a procedure.

There should also be a digital/hardcopy listing of all office-related items that are in staff possession. These include office/supply room keys, various electronic equipment(s), and other office items.

Personal Protective Equipment and Other Emergency-related Items

COVID-19 and other infectious disease outbreaks and emergency situations have highlighted the need to maintain a 3- to 6-month supply of PPE. The limited availability of PPE has been a rate-limiting step for many reopening scenarios following the easing of governmental-imposed COVID-19 restrictions. Unfortunately, some practices reported not having sufficient supplies at the outset of the crisis. Others, in gestures of good-will, reported giving away their PPE supplies not realizing the limitations and the difficulties and expense of obtaining sufficient amounts for reopening.

Emergency supplies of PPE include goggles, laser and surgical procedural face masks, face shields, head caps, body gowns/scrubs, gloves, and hand and surface sanitizer(s). Ideally, offices would have a sufficient supply of N-95 (or at least KN-95) masks for all staff members as well as methods for disinfecting (eg, ultraviolet germicidal irradiation) certain types of disposable face masks.[3-5] Unfortunately, few practices stocked enough N95 masks for all staff members, which resulted in staff members wearing other, less protective masks.

Ancillary items that should be accessible include infrared "no-touch" thermometers, additional batteries for these, and patient-illness/symptom questionnaires. Some offices report the stocking of hypochlorous acid for the staff to use in the cleaning of eyes and sinuses. Personnel should be advised to wear shoes that can be cleaned/disinfected or shoe covers. Other items to be included in this, and as we learned from earlier epidemics, was the importance of trash bags for clearance of contaminated items. As mentioned in a later section, the office should consider having a high-level bactericidal/virucidal air filtration system (high-efficiency particulate air [HEPA] filters) with replacement filters available.

The use of antimicrobial mouthwashes and/or nasal sprays have been suggested as a method to avoid exposure from infected (COVID or other pathogen[s]) patients undergoing "aerosol-generating" procedures. However, recent literature searches by a collaborative team from Cochrane's Oral Health and Ear, Nose, Throat groups identified no completed studies supporting this theory.[6-8] Several studies are currently underway at the time of press including randomized controlled trials that will hopefully provide robust guidance for the future.

Adjunctive Infection Control Measures

When offices reopen following an infectious disease crisis, the performance of procedures represents a cause for health and wellness concerns among patients and staff. To date, the CDC has not provided any recommendations for the use of portable

HEPA purifiers for decontamination of COVID-19 in clinical areas or procedure rooms.

Interestingly, the CDC did suggest the use of portable HEPA purifiers as an adjunctive infection control strategy for SARS-CoV-1, the causative agent of the 2003 SARS outbreak. Given this, air purifiers with HEPA filters have been proposed as an adjunctive method of COVID-19 decontamination. Ideally, the clinic building would be outfitted with an effective HVAC bactericidal/virucidal filtration system that reduces the circulation of potential pathogens. In addition, the installation of an in-clinic portable HEPA purifier should be considered an adjunctive infection control measure and undertaken with a knowledge of HEPA filter functionality and limitations.[9] It has been suggested that medical grade plume/smoke evacuators are utilized in order to reduce aerosolization of particles during procedures, especially those in close proximity to the nose and mouth that require removal of the patient's mask. Non-medical grade fume evacuators and vacuum cleaners for fume evacuation should be avoided.[2]

The office administrator should have a back-up supply of air filtration filters, if applicable. It is critical to advise staff personnel that proper PPE should be worn when exchanging these air filters as the filters may contain trapped pathogens. The proper disposal of these contaminated filters should also be followed. In addition, it would be extremely helpful for the office building or suite to be equipped with an emergency generator in cases of electrical outages/malfunction.

Office Staffing and Patient Considerations and Protocols

Proper staffing and effective communications and transparency among staff and with patients are the hallmarks of a well-functioning office. A robust and vibrant staff is particularly critical during emergency situations. These individuals are often charged with communicating emergency policies and protocols to patients and their families as well as enforcing these among office peers. The following sections discuss items for consideration in managing office staff and patients.

Office Staffing Considerations

In emergency situations that require office closure, a guidance policy detailing staffing options such as furlough versus termination/unemployment and the implications of each of these should be in place. In some cases, the practice may implement a "tiered" strategy to furloughing employees or reducing work hours across all staff members. All staff should understand and appreciate the potential for mental health stress, strain, and burnout among coworkers dealing with their own difficult financial and other situations or family circumstances related to the emergency.

In the case of infectious disease exposures, it is critical that office staff understand and comply with the need to stay "safe" both inside and outside of the office. They should be advised to limit all unnecessary exposure and travel and to practice good hygiene. This avoids the potential for these individuals to infect other staff members and patients. This may require the development of a specific employee protocol that stipulates the wearing of masks, sanitizing hands, using all appropriate cleaning precautions, and the need to avoid coming to the office when they are feeling ill.

It is important for office managers to identify and document staff that appear to be ill and ensure that they are provided with adequate sick leave. Staff should be aware of a stringent policy regarding "return-to-work" and a zero-tolerance policy for those who come to work feeling ill. In order to provide staff coverage in these situations, there is a critical need for back-up staff who are trained in providing the services that are essential to the practice (ie, consider back-up laser operator and injector in cases where key personnel are not available).

Consistent wearing of PPE by the staff and mandating that patients wear masks will alleviate some of concerns of illness/infection transmission. Patients should be advised to attend their visit wearing a mask. The office should be ready to offer PPE to patients who present without these items (eg, masks, gloves, or whatever is necessary) and to impose a "no PPE, no visit" policy if necessary. Office managers should consider modifications to office hours (earlier mornings, later evenings) to reduce the number of patients in the office at any one time. A pre-planned staffing and office-hours protocol for emergency scenarios should be prepared and readily available to implement.

Patient Management Strategies

In the case of COVID-19, practice reopening is further complicated by the idea of contact tracing following possible in-clinic exposure. Patient's should receive prompt information regarding the status of the office practice following any type of emergency. Specifically, it is prudent to develop pre-planned patient communication messages for emergency scenarios related to practitioner unavailability, office closures, or other events.

Communications and Contact Tracing

In situations of office closure or limited patient accessibility, the staff should be prepared to quickly switch to virtual access patient management tools such as telemedicine appointments. The office technology should include remote access to patient contact details (eg, phone numbers, email, etc), patient medical records including photographs and consent forms, and other pertinent items to perform efficient virtual appointments.

Once the office reopens, safety practices should be implemented. Specifically, with respect to patient management the staff needs

to be aware of the need to decrease the actual flow of patient visits, and to space or stagger all treatment-related and in-office visits such that a minimal number of patients are in the office at one time. Office appointments should be kept brief with all in attendance wearing sufficient PPE and performing adequate handwashing practices. In addition, the staggering of appointment allows sufficient time between appointments for room disinfection. Unfortunately, this often results in limiting the total number of patient appointments per day and may require an extension of office hours. The use of telemedicine appointments and the ability to supply patients with products via a website or call-in ordering is helpful in reducing in-clinic patient visits.

Patients seen in the office should be advised of the stringent precautionary measures that include everyone wearing PPE (see above section) and the use of temperature monitoring (if applicable). During procedures that require PPE removal, patients should not be allowed to talk, with some clinicians noting that they provided patients with a small piece of wet gauze to hold over their lips as a reminder. There should also be guidelines that limit unneeded patient escorts (while still permitting patients with a disability or need for assistance as well as minors to have someone accompany them) and directing these individuals to wait in the car or another location. Office practices should be prepared to accept credit card payment prior to the appointment completion to minimize the back desk/check out process or use a "touch-free" system.

Practice changes among those undergoing office-based treatments may include precautions to protect the injected areas post-treatment. This may include the use of proper skin preparation or other antiseptic preparation on the surrounding areas. In cases of treatments to the lip area the patient should be advised to remove the mask after they are in the car to avoid further bacterial exposure from the mask and the occurrence of biofilm.

Contact tracing through patient records, a smart-phone app, or other means should also be implemented. This involves identifying individuals who were exposed to a contagion or infected person and notifying them of the contact and the recommended course of action. In the case of the COVID-19 crisis, this consists of tracing all individuals who came in contact with the "positive" person; promptly notifying them via email, text, or phone call of the potential exposure; and relaying the testing recommendation. The clinic should be completely decontaminated to avoid further exposure(s).

SUMMARY

The COVID-19 crisis has emphasized the need for practitioners to be prepared for sudden emergency situations that require closure for an extended period of time. The implementation of some or all of these suggested emergency preparedness strategies will ideally minimize the detrimental effects on the practice and ease the transition back to seeing patients and resuming aesthetic visits and procedures. The authors consider this a best effort at an approach for future disasters rather than a comprehensive all-inclusive document and emphasize that the approaches to emergency preparedness will vary according to the type and magnitude of future circumstances.

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Joel L. Cohen is a consultant for Allergan (an AbbVie company).

Steve H. Dayan is a researcher, consultant and/or on the speaker board of the following companies: Aesthetic Biomedical Systems, Alastin, Allergan (an AbbVie company), Croma, Evolence, Galderma, Merz, Revance Therapeutics, and Venus.

Mathew M. Avram serves as a consultant to Allergan (an AbbVie company), is on the Advisory Board of Soliton, Inc. and Sciton, Inc., has stock options in Cytrellis, Inc., and La Jolla Nanoparticle.

Renato Saltz serves on the advisory boards of Allergan Aesthetics, Coolsculpting, and Dominion Aesthetics, and has received royalties for book editing and publishing.

Suzanne Kilmer is on the advisory board and has received research support from the following companies: Aesthetics Biomedical, Alastin Skincare, Allergan (an AbbVie company), Cutera, Cytrellis, Dominion-Aesthetics, Galderma, Lumenis, Lutronic, Merz, Pulse Biosciences, Revance, Solta/Valeant, Syneron/Candela, and Venus Concepts. She is a shareholder of Accure, Alastin Skincare, Avava, Cutera, Cytrellis, Dominion Aesthetics, and Revance.

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AUTHOR CORRESPONDENCE

Joel L. Cohen MD

E-mail:..... jcohenderm@yahoo.com