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Recommendations for Dermatology Office Reopening in the Era of COVID-19

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ABSTRACT

The COVID-19 pandemic, originating in Wuhan, China, has become a major public health and economic challenge for countries around the world. As of May 08, 2020, there are over 3 million COVID-19 cases, and 250,000 COVID-19- associated deaths in 215 countries. As more data is collected, updated infection control measures are continuously released and published by government, public health authorities, and physician specialty associations. Across the globe, dermatological practices have had to limit their operations to varying degrees to facilitate disease control, but as the pandemic subsides, they will broaden their operations. In light of the uncertainty surrounding safe and effective practice of medical and aesthetic dermatology in the era of COVID-19, fourteen international experts in the field contributed to recommendations for effective infection control protocols and practice management modifications. While guidance from the World Health Organization and local public health officials comes first, these recommendations are crafted as a starting point for dermatologists worldwide to commence either reopening their doors to patients or expanding available service offerings. This can help ensure that patients receive needed care in the short term and improve long term practice viability.

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INTRODUCTION

On March 11, 2020, the coronavirus disease 19 (COVID-19), caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was declared a pandemic by the World Health Organization (WHO).[1] The incubation period of the virus varies from a few days up to two weeks until presentation of reported symptoms that include fever, cough, nasal congestion, fatigue, breathing difficulty, sore throat, diarrhea, vomiting, and loss of taste or smell.[2] In severe cases, the disease can progress to Acute Respiratory Distress Syndrome (ARDS), septic shock, acidosis resulting in severe metabolic alterations, coagulation deficiency, and multiple organ failure can occur.[3] The pandemic has placed significant stress on healthcare providers and their patients, both due to critical resource shortages and delays in care. Because clear dermatological diagnoses can rarely be done from a distance larger than 20 cm, and close face-to-face contact is required for a plethora of dermatologic procedures, both medical and aesthetic, even routine dermatologic care poses a significant risk of viral transmission between patient and providers. In the early stages of the pandemic, response varied by country: from the American Academy of Dermatology recommendation to cease all but the most urgent dermatological care to preserve critical personal protective equipment (PPE) for hospital COVID units to the German Federal Ministry of Health requirement that dermatology practices remain open to keep dermatologic care out of emergency units. These variations were based in part upon population density, availability of PPE, and hospital capacity in different countries. Despite these differences, dermatologists

around the globe face similar challenges as they face the 'new normal' of evaluating and treating patients in the time of COVID. Indeed, as lockdowns are lifted, social distancing measures are relaxed, and patients' demand for both standard dermatologic care and aesthetic treatments returns, dermatologists worldwide recognize they will need to resume a new operational modus operandi, one in which preparedness and emergency policies are hardened against known and new biological risks. As practices open, fully new, as yet unknown, issues around liability and other legal and public health obligations may arise. While guidance is an evolving scenario that is updated by local ministries of health to reflect new information and considerations, there is a dire need for a roadmap dermatologists can follow as they resume operations, to safely and effectively treat their patients without compromising clinical outcomes, overutilize precious resources, or suffer additional financial losses. Medical associations around the world have provided "physician practice guides for reopening" on their websites. Multispecialty groups of physicians and surgeons have recently published some recommendations specific to aesthetic specialties and procedures.[4-6]

In recognition of this gap of knowledge for dermatologists and taking into consideration that COVID-19 government responses around the world have been nuanced, a group of international experts was assembled to formulate guidance and best-practices for resuming dermatology practices in a COVID-19 era. Participants included individuals from Europe, North America, Latin America, and Asia, with a balanced spectrum of professional seniority and expertise. Experts convened via videoconferencing on three separate occasions and collectively designed an outline describing new guidelines, policies, and protocols that may be utilized to resume practice with a completely revised operational standard. Each member contributed to the recommendations, which were backed up by the best available research evidence identified by PubMed searches with MeSH terms. The recommendations include considerations for new organizational policies and practical guidelines for dermatology practices as the corona pandemic continues. A personal perspective of each experts' experience from different countries of origin is also included. The recommendations are not to replace federal, state or local government laws, which have to be obeyed.

Pre-Opening Planning

Digital Footprint: Website, Social Media, etc.

All online avenues of the dermatology practice (website, newsblasts, social media) need to be harnessed and have their messaging adjusted in an informative yet positive manner. Communication should the unique ability of specialty dermatology practices to provide the safest environment for their dermatologic needs. It is important to prepare patients for each clinic's new standards of practice in response to the COVID-19 outbreak. Clear instructions should be sent prior to arrival and include the relevant details of the clinic practice preparedness plan including expectations for patient behavior – utilizing hand washing stations, required mask wearing, and others, and what to expect regarding practice flow through the office and physician and staff PPE. Understanding the clinic regulations and their own responsibility in this setting can both reduce patient anxiety upon entry and aid staff to maintain stringent infection control. All the new policy and protocols should be clearly displayed at office entry, throughout common areas, treatment rooms, and in bathroom. Clearly visible and easily understandable visual images are particularly helpful for these posted protocols.

Telemedicine

Consider integrating telemedicine in your practice. While this may not be an answer for every practice, it has proven to be successful in various settings.[7] "Telemedicine" is a term that covers any use of electronic communication technology to convey medical information. While previously promoted as an opportunity to expand healthcare access rural and underserved populations, telemedicine has been aggressively adopted as a safer means to provide medical care during the COVID-19 pandemic. In addition to minimizing office traffic and contact time and, thereby, reduce the potential risk of infectious disease transmission, telemedicine has been shown to achieve similar health outcomes compared with in-person patient visits in several studies and can have additional benefits including reducing travel costs and time away from work. The contact time in the office can then be limited to what is needed for examinations and procedures that may not be done virtually. In the USA, the government has temporarily waived compliance with strict patient privacy regulations to increase accessibility of telemedicine during the COVID-19 pandemic. Prior to using publicly available applications such as FaceTime, Skype, and Zoom, or specific electronic health portals, to provide telehealth remote communications with patients, physicians should check their country's applicable government regulations. The ability to collect payment from patients for these visits and the relevant coding and documentation needed must also be checked with national healthcare agencies.[8-10]

Necessary for successful telemedicine integration may include an electronic medical record system infrastructure, audiovisual platforms, necessary hardware, coding/billing integration, and information technology (IT) support. Training on both the side of the physician (providers, assistants, schedulers, and billers) and the patient (patient and/or caregiver) is also critical to allow adequate visibility during each virtual examination. In some cases, a small investment by the patient in a home device such as a simplified Bluetooth dermatoscope and home diagnostic lab kits may be required. The most easily integrated telemedicine visits are:

- E-visits, for digital evaluation and medication management. For these visit patients must be established, enrolled, and active in the patient portal and have had an appointment in the past one year.
- Evaluation of recorded video and/or images submitted by an established patient that includes interpretation with follow-up with the patient within 24 business hours. This visit is unrelated to services provided within the previous 7 days and does not lead to an e-visit or in person visit within the next week.
- Virtual consultations for new medical or cosmetic dermatology patients are also an option for some practices. Practices may wish to allow time for a second shorter in-office evaluation immediately before performing an aesthetic procedure on any patient seen only virtually.
- Patients should be advised that virtual visits do not replace the need for an in-office appointment at a time when safety standards allow.

In the experts' experience, onboarding patients and even physicians on telemedicine platforms has a steep learning curve, which can frustrate patients and support staff. However, minimal training is required to use it for straight forward medical follow ups and counseling. Before the visit, which lasts an average of 15 minutes, medical information and photographs are sent to the physician. After the interaction, the patient chart is completed as it would be during an in-person visit with history, evaluation, assessment, and plan. While telemedicine is currently built as a physician platform, it can also be used by nursing staff within the telemedicine model to mimic a standard in-person encounter. Aesthetic consultations may also be conducted virtually in this manner. Collectively, the experts feel that being an early adopter of telemedicine may have long-term benefits for patients who find it physically difficult to attend routine appointments due to health or distance, and for the practice's ability to increase the number of patients served. Effective implementation requires clinician and patient enthusiasm and organization but can be leveraged as an effective channel for patient care during this challenging time.

Forms and Questionnaires

Forms and questionnaires including preregistration data collection, health information, preoperative instructions, and informed consent, must be updated to include pertinent information relating to the SARS-CoV-2 virus. In order to avoid unnecessary patient anxiety, these forms should be kept as simple, clear, and concise as possible. Important screening information such as a diagnosis of COVID-19, the presence of COVID-19-like symptoms, recent travel, and the health of contacts is easily captured through simple verbal or written questionnaire and can be used to determine whether a patient can be seen in-office, must reschedule at a later date, or should be switched to a virtual visit (Table 1). These screening questions are generally based upon standard World Health Organization definitions and should be updated with additional signs and symptoms as new knowledge arises.

TABLE 1.

Example Preregistration Form		
	Yes	No
In the past 14 days have you or a household member traveled in areas with known cases of COVID-19. If so which location		
In the past 14 days have you or a household member had contact with a known COVID-19 patient?		
Have you had a history fever in the past 14 days?		
Have you had any cold or flu-like symptoms in the last 14 days or any of the following: loss of taste or smell, cough, sore throat, respiratory illness, difficulty breathing		

TABLE 2.

Scoring System Patient Risk Level for Contraction of Severe COVID-19 Disease	
Extreme Risk	Above 70 years old + 3 risk factors
High Risk	Above 70 50-69 years old + 2 risk factors 0-49 years old + 4 risk factors
Risk Factors	
Smoking	
Diabetes	
Cardiovascular condition	
BMI above 30	
Hospital admission in past 3 years	

Per one expert, the Israel health ministry released a "patient risk score scale" to be used prior to scheduling healthcare visits to determine the patient's risk of morbidity or mortality with a COVID-19 infection. However, such a measure has not been adopted internationally, and some of the experts feel this is an issue that should be determined by the individual patient and his or her general medicine physician, not dermatologist (Table 2). Certainly, any patient known to be COVID-10 positive or recently exposed to a COVID-19 positive patient, should be rescheduled. However, even asymptomatic and 'risk-free' patients should be approached as though they could be COVID-19 positive, just as with other universal precautions.

Physical/Equipment Considerations

SARS-CoV-2 is transmitted through microdroplets and aerosol: its diffusion occurs through coughing, sneezing, and saliva, and infection entry points are the mouth, nose, and eyes.[11] Because both asymptomatic patients in the incubation phase and healthy carriers can transmit the virus, even pre-screened

in-office patient contacts should be approached as potentially infectious.[12] The virus can remain viable and infectious in aerosols for hours and on surfaces up to several days (depending on the inoculum shed and surface material).[13] Exposure distance less than 6 feet, duration greater than 15 minutes, and/or contact with a contaminated surface or airborne particles presents high risk for infection. Given these facts, physical space needs to be redesigned to reduce the risk of contamination and contact for both staff and patients. Prior to the pandemic, the modern medical office had transformed from the traditional cold, clinical setting to a warm, welcoming environment where patients were encouraged to relax prior to the visit, with refreshments, samples, and reading materials at their disposal. In the COVID-19 era however, the physical space must be stripped from anything redundant and separated into clearly demarcated areas:

- Barriers, such as glass or acrylic 'sneeze shields' may be placed to protect reception staff from incoming and outgoing patients.
- Hand sanitizers should be prominently placed for patient use on office entry and throughout the office including utilized areas of the waiting room, lavatories, and treatment rooms. Hands-free units (electronic or foot pedal) are ideal to avoid cross contamination.
- Remove magazines, pens, blankets, pillows, toys, promotional or any reading materials, and skincare samples, and block off refreshment areas and coat closets to discourage contamination by patient contact.
- Patient waiting areas should be closed, or, if in use, provide seating separated by standards of physical distancing.
- All workstations must be rearranged to provide safe physical distance between staff members.
- Adding an air circulation and filtering system such as one including HEPA filters and UVC irradiation in current HVAC systems or adding portable devices may be useful in some environments.
- Decontamination and disinfection supplies should be accessible in every room to facilitate sanitizing surfaces before and after each patient visit. Lipid solvents such as ether, 75% ethanol, and disinfectants containing chlorine (hypochlorous acid), peracetic acid, and chloroform are recommended to inactivate and destroy pathogens from any surface. A list of disinfectants approved against SARS-CoV-2 can be found online in each countries environmental protection agency website.[14]
- Treatment room contents must be minimized. Remove brochures, extra pillows, blankets, and other non-essential items that cannot be stored within a closed cabinet or drawer. These materials may be brought into the room on an as needed basis for individual patients. If office space is limited, disposable covers are an option to protect equipment not in use.
- Invest in smoke evacuator units for procedures that produce a plume such as electrocauterization, laser (including ablative and non-ablative resurfacing, laser hair removal, tattoo removal). The smoke capture device should be held less than 1 inch away from the treatment site to achieve efficient evacuation.
- Provide no-touch waste containers with disposable liners in all reception, waiting, patient care, and restroom areas. All waste receptacles should be clearly labeled as biohazard or regular per government regulations.

PPE Staff/Physician Considerations

The type of PPE (masks, gloves, goggles, shoe covers, face shields, jackets, or other body coverings) required for each staff member will depend on the anticipated risk of exposure while performing their job responsibilities. In the USA, every office must have written Occupational Safety and Health Administration (OSHA) regulations and document employee training. Employees may use a higher level of protection but cannot use less than the minimum required to prevent occupational exposure to transmissible pathogens.[15] In the USA, the American Society of Testing and Materials (ASTM) rating system is a useful guide to face mask selection and use.[16] Government health agencies should be used as a guide in other areas.

- Surgical masks (SMs) can filter particles of 0.04–1.3 μm and are commonly used to physically block particles such as droplets. Their principal limitation is due to poor quality of face fit and the consequent possibility of aerosol aspiration. However, these can be worn by support staff or in all eventualities where there is contact between the patient and other people less than 2 meters away and for more than 15 minutes. These may also be worn by patients to avoid their contaminating environment. The level mask used and whether a 'home made' cloth mask is sufficient must be determined based upon the employees' responsibilities
- Filtering-face piece respirators (FFP) such as N95 (USA), KN95 (ASIA), and SPP3 (EUROPE) have filtration efficiencies ranging from 80%–99% and are the most appropriate barriers against aerosol because they provide a tight seal to the facial skin. Staff working in close proximity to or over long duration at the patient's side need to wear an FFP mask as a minimum. If patient is not wearing a mask because of the treatment performed, the additional use of single use gowns or washable upper body coverage, gloves, and full coverage goggles or a plastic full-face shield is recommended.

Disinfection routines must be rigorously followed including handwashing and changing of contaminated PPE and thorough cleansing of equipment as well as all high-touch areas (bed, chair, tables, door handles, light switches, etc) before and after direct contact with a patient, before any aseptic procedure, after potential exposure to body fluids, and after direct contact to potentially contaminated items or surfaces. In addition to PPE, it is recommended that surgical scrubs or other dedicated office uniforms be worn by all providers and staff in close proximity to

patients, to avoid the risk of clothing as a transmission vector.

Office Operations and Management

Under normal circumstances, maintaining a smooth-running dermatology practice is not an easy task. There are constant challenges for which professionals need to be prepared to provide quality care for their patients. With the COVID-19 pandemic, even long-standing, successful policies may need to be altered or completely rewritten from patient scheduling, to visit-day details, and all associated alterations needed to staffing and supplies.

Personnel

- In order to maintain social distancing, it is recommended that only essential staff be onsite. In some offices, receptionists and billing staff may be able to work remotely if compliant with country and local privacy regulations.
- Staff must be educated on policies and practices to recognize symptoms and minimize chance of exposure to respiratory pathogens including SARS-CoV-2 and how and to whom to report concerns.
- Policies that promptly alert key staff about known suspected COVID-19 patients need to be implemented. Follow up of positive or suspected cases of COVID-19 must be done per department of health directives.
- Institute a plan of action in case of office staff illness, absences, and/or quarantine. All such plans should be in compliance with government department of health regulation and local labor laws.
- Where possible, it may be useful to cross-train staff for all essential office and medical functions.
- In multi-provider offices, staff may be divided into teams working in different areas and/or at staggered schedules. In that way, only the team exposed to a COVID-19 patient will require quarantine, not the full office staff.
- Monitor staff compliance with standard precautions and provide mechanisms for improvement as needed.

PPE Supply and Cleaning Procedures

- Review proper office and medical cleaning routines. Patient rooms must be sanitized before and after each patient visit. Always allow fresh air in between one patient and another.
- Identify PPE supplies required for care to be delivered during an outbreak or pandemic, and suitable suppliers.[17]
- Anticipate delays in shipping and delivery and stock up on commonly used products in advance.
- Service all equipment and keep their service inspections up to date.
- Professional office cleaning services used daily or more frequently must be evaluated for their use of appropriate cleansers and PPE while in the office

Scheduling and Triage of Patients

- Depending on the size of the clinic, limit the number of patients seen per day in order to maintain safe distancing in all public spaces.
- Consider scheduling high risk patients (elderly) at specific times of day to avoid their contact with other patients.
- Add an extra 15–30 minutes between patient appointments to allow treatment rooms and equipment to be sanitized and patients to enter and exit separately.
- Practices may need to extend daily office hours and the days of the week offered to allow more patients.
- In order to minimize multiple points of exposure, if possible, patients should be taken upon arrival to a single treatment room in which preparation (including topical anesthesia if needed), treatment, and post treatment acts are performed. This coordination must be determined prior to the patient arrival and may affect the number of treatments that can be performed during one visit.
- A final confirmation of the patient appointment that includes triage regarding potential COVID-19 related symptoms should be done 24–48 hours prior.
- Schedule telemedicine visits if patient does not require procedure.

Pre-Consulting

The experts discussed how a day-to-day life will look like in this new COVID-19 era. This will vary depending on the size of the practice, the number of office locations, the office space, and the type of patients providers see. The end goal however is to keep in-office appointments as short as possible and minimize the patients contact touchpoints in the clinic.

- All providers, staff, and patients are screened for COVID-19 symptoms at the entrance of practices and given a temperature check with a "no-touch" thermometer.
- System is in place either for communication between office staff and patients to time patient entrance into the clinic. In either case, the patient will wait either in their car or curbside until they have been told to enter.
- Unless necessary for medical reasons (disability, health impairment, a minor), each patient must enter the clinic unaccompanied by friends, family members, or children.
- Patients will be instructed to sanitize hands prior to or upon entering the office and those without a mask will have one left for them outside the door along with shoe covers.
- All incoming patients are directed to an additional hand sanitizer or to the bathroom to wash their hands prior to their visit.
- One nurse/medical assistant is assigned per patient.
- Patients must wear a mask throughout their time in the clinic except when the face is specifically evaluated or treated. A clean mask is applied immediately after.
- Depending upon the office layout, payment and follow up scheduling may be done online, in the treatment room, or with contactless payment at reception desk.
- Patient room is sanitized/cleaned before and after each visit:

- o All disposable sheets are removed, and surfaces are disinfected (treatment bed, as well as everything touched by the patient: eg, hand mirror, chair, desk, pen used for signature of the consent form).
- o Disposable bed sheets/pillowcase are changed and underlying examination table and manual controls sanitized.
- o Doorknobs, light switches, tray tables, mayo stands, patient chairs, and all other potential surface areas of contact are sanitized (these areas are sanitized/disinfected – they are not sterilized).
- o Surfaces of equipment such as energy-based device surfaces are disinfected.
- o All contaminated PPE must be properly removed, cleaned, or disposed of properly with office biohazardous waste and labelled accordingly.
- o Rigorous hand hygiene must be performed after glove removal.
- o The dermatologic surgery theater is disinfected and air is allowed to circulate.
- o Staff change uniforms each day (or protective cover/gown).

Dermatologic Treatments and Risk Tiering

As practices resume operations, the question arises whether dermatologists will be able to provide their full offering of medical and aesthetic care safely and effectively. These offerings must now be perceived through a new lens: the risk of COVID-19. High risk procedures are any aerosol-generating procedures (AGPs), such as those that involve breach of mucosa, and laser-generated plume.[18] Until new safety protocols have become smooth, practices may wish to defer procedures that involve the oropharyngeal and nasopharyngeal area, since this is the main route of COVID19 transmission from patient to provider.[19] For procedures involving the nasal and/or oral cavity, pre-procedural irrigation with an oral disinfectant solution (1.5% hydrogen peroxide, 0.2% povidone iodine or hypochlorous acid) is advised.[20] All providers and staff present during those procedures should be wearing the highest level of PPE described above. In high risk or longer procedures, it might be wise to ask patients to get tested for COVID-19. Some institutions are requiring patients have two negative COVID-19 tests within 24 hours immediately prior to such procedures.

Conclusion and Dermatologic Insights from Around the World

As the pandemic subsides, dermatologists like the rest of society face resumption of previously usual routines now in the most unusual of circumstances. Since the situation will continue to be fluid with ongoing publication of new regulations and guidance from professional societies, federal, state, and local authorities, it is crucial that dermatologists remain alert in order to protect their patients, staff and practice. We must not become over-confident: only time will tell if these safeguards are sufficient. However, experts feel optimistic that overcoming the current challenges will provide the safe and efficient environment our patients expect for dermatologic care. Preparation now will also serve us and our communities if we are every faced with similar circumstances in the future.

United States, Beverly Hills, CA – Ava Shamban

Patients are screened by telephone for prior exposure and any risk factors. A telemedicine appointment is conducted to ascertain exact nature of visit and consents are sent electronically.

Patient arrives and notifies front desk by text or phone call. When patient arrives at the door thermal thermometer is used, hands sanitized, mask is given if not already on. Patients are escorted immediately to their room. Visit is conducted with both patient and provider wearing masks except when perioral area is treated. Checkout, payment, product sales, and future appointment are made in the exam room. Patient departs. Staff is properly screened as described in other protocols. PPE includes cloth hair bonnet, safety googles, N95, scrubs, and disposable shoe coverings. Clothing is removed at the end of the workday and taken home to be laundered. Disposable bed and pillow covers are in place. Medical grade air purifiers are in rooms with appropriate filter and air recirculation frequency. Building to provide superior air filters in building air conditioner. At the end of the visit, Lysol wipes or equivalent are used. Hypochlorous mouth wash is used before perioral injectables. Smoke evacuation to be used with every ablative or fractionated ablative procedure.

United States, New York, NY – Neil Sadick

Sadick Dermatology has two ground-floor clinics and research centers in Manhattan. Since NYC is the US epicenter of the COVID-19 outbreak in the US, many guidelines and restrictions have been put into place by our state officials. Our focus is to support NYC healthcare and our patients that do not have COVID-19 but still need dermatologic care. For example, complicated cases of psoriasis, infections, and skin cancers with health risks still need in person visits, so we operate with a skeleton staff to serve them. We take safety seriously and follow the OSHA standards to sanitize and clean our offices during the day and between patients. Our staff are up-to-date with the latest guidelines published by the local public health authorities. On a day-to-day basis, patients are swiftly taken to the treatment rooms and they spend minimal, if any, time in the waiting room. We limit the number of patients in the practice, and direct patients to the bathroom to wash hands prior to their visit. Masks are required at all times in the office. We've ensured a supply of PPE for our vendors, so we can keep our doors open to our patients that need care. For all other patients, we offer telemedicine consultations, which has been a great success as our patients can make appointments, and get advice and prescriptions filled without coming into the office. Our research group also continues to be busy; we abide to the FDA COVID-19 guidance document for the conduct of clinical trials and keep moving forward by having close communication with our study monitors and sponsors.

We are providing our enrolled subjects the option of conducting virtual or phone visits if subjects are unable to come on-site visits. This is a challenging time, but I am confident we will emerge with bulletproof protocols against any future adversity and equipped to as never before.

United States, Nanuet, NY – Heidi A. Waldorf
New York State, and in particular the southern part of the state, which includes my office, is the epicenter of COVID-19 cases in the USA. The state closed non-essential workplaces including medical offices in mid-March. Opening of strictly aesthetic practices like mine is expected in June. My office does not use electronic medical records or telemedicine. Currently, staff are working from home except when absolutely necessary to enter the office. Anyone entering office throughout the closure wears a mask. Staff will be brought back into the office, most likely on staggered schedules, the two weeks prior to the start of patient hours. The week prior to reopening, all staff will be present for OSHA training including training in the use of PPE for their contact-risk level and review of new Standard Operating Procedure guidelines and job definitions and new workstation assignments to provide physical distancing. The office will be 'decluttered' of all nonessential items that could risk contamination. Patients will be sent instructions, updated forms, and a link to a video explaining what to expect during their visit. Prescreening for COVID-19 risks will be done prior to arrival and repeated prior to entry. Front staff and patient will communicate by text or call to coordinate their entry into the office, hand sanitizing, and receiving a mask if they do not have one, and then have temperature taken, and be brought directly into the exam room by a nurse. In the room, the patient mask will be removed for face photos and then replaced so that the initial discussion may be done utilizing photos. Face masks will be removed for facial treatment and a new mask placed. In addition to PPE and room/equipment sanitizing, all procedures that may produce a smoke plume will be performed using a filtered smoke evacuator and in the presence of an air circulation, filtration, and UVC device. Check out will be done at reception, with only one patient present at any given time to ensure that recommended follow-up appointments are made prior to leaving.

Kuwait, Salmiya – Sahar Ghannam
All clinics have been under mandatory closure since the middle of March and are hoping to reopen by the beginning of June. When opening, we plan to instruct patients to come on time, prepare paperwork before entering the office, and use the stairs instead of the elevator. Temperature checks will be done upon arrival. We will consolidate treatments and checkout to be complete in one room. We will require patients and staff to wear masks. Teledermatology is not common in our area and we don't utilize such platforms.

Brazil, Porto Alegre – Doris Hexsel
In Porto Alegre, the social distancing recommendations started by the end of March, but by then, 50% of the physicians reopened their clinics adopting many measures in order to prevent COVID infections and avoid potential contaminated patients. By the end of April, some industries and other businesses were allowed to return to work. Some of the measures in our clinic, which has been open since April 15, include:

Staff measures: frequent handwashing, no jewelry, protective clothing, surgical masks and shield masks, scheduling of patients to avoid more than 2 patients in the waiting room and to keep distance between them; one exclusive room for risk patients (older people, under cancer treatment, etc). Avoidance of patients coming from other countries and states of Brazil, or those presenting with symptoms or living with patients who had COVID in the last 15 days.

Patient measures: we only admit patients using masks. We give them special disposable clothing, cover shoes and caps, as well as a clean plastic bag to bring handbags and clothing from outside. Alcohol-gel and hand moisturizing is available all rooms.

Brazil, São Paulo – Suleima Arruda
São Paulo is the most affected area in Brazil with the highest number of COVID-19 cases in the country. Partial lockdown started on March 16 and we are still respecting it till the present moment. If a medical consultation can´t be rescheduled for a later date, it must happen following the local safety guidelines. It's important to note that telemedicine till now was not allowed in Brazil. It just started now with all the Covid19 adaptations, and it seems it will be here for good. Dermatologists in Brazil should continue to abide with the Brazilian local regulations.

Germany, Darmstadt – Sonja Sattler
Germany had a little different approach how to deal with COVID-19: Depending on the state we were living in, and the hot spot centers of the COVID19 infections, we had a full or partial lockdown of the cities and area. In our state, Hessen, which always showed moderate numbers, we were asked to stay home, but were allowed to move more or less free outside. We never closed fully our clinic or our little satellite offices and have been available for emergencies (which were few) all the time. We saw between 4–8 patients per day. We separated all staff into 2 groups, which are now working 1 week and stay home 1 week, so if any infection of COVID-19 appears, only half of the staff must go into quarantine and be tested. Doctors and all staff in my clinic take all precautions: with PPE and disinfection, single use gowns (we now added multi-use cotton gowns, which will be washed every day, and can be sterilized if needed), etc, and consider that no matter what the patient tells us, each patient can be COVID-19 positive. So, we do not score our patients. We do not do temperature checks, since it does not give us more information. We do trust our patients, but even when they declare they feel well, we consult them as if they are COVID-19 positive. Patients and staff are always wearing masks. Staff working

close or longer at the patients' side need to wear an FFP2 mask, especially when the patient cannot wear a mask because of the treatment performed. In addition, the staff wears single-use gowns plus gloves in my clinic, and also plastic full-face shields, if possible. On May 4th, 2020 we were able to start working again for medical indications as well as cosmetic treatments and surgeries in Hessen, Germany. My staff is well educated and highly motivated. With all the precautions in place, we started quite good, trying to keep up with the patient flow and all rules. Limiting the number of patients per day becomes essential and is the most difficult task at this point. Each of our doctors sees 1 patient in 45 minutes–1 hour for a consultation including, eg, cosmetic filler treatment, which is 20-30 minutes longer than scheduled before COVID-19. Every patient only goes into 1 consultation room, everything is performed in this one room consultation – photography, treatment, and payment.

Philippines, Manila – Cristina Puyat

We have been on total lockdown since March 15 until the present time. Our lockdown might be lifted May 15. In our country, there are 2 kinds of quarantine namely Enhanced Community Quarantine (ECQ), which is where we fall now. Stringent measures are observed, public transportation system is suspended, and only essential businesses are allowed to operate. While the ECQ is in effect, telemedicine and teledermatology has been implemented. Consent form is sent to the patient electronically prior online consultation in accordance with the 2012 data privacy act of the Philippines. We assure that everything we discuss, and all pictures sent, are kept confidential. Wearing of mask in public is required. General Community Quarantine (GCQ) might be implemented May 15. This is the only time that our private clinics will be able to operate putting all the safety guidelines into place. The new protocols for re-opening clinics post-COVID-19 quarantine will be discussed with the patient who will be going to the clinic physically as these protocols will be strictly implemented. Public transportation in reduced capacity will be allowed, as well as reopening of selected establishments, subject to health standards enforced by the local government.

Malaysia, Kuala Lumpur – Tingsong Lim

Malaysia started implementing Movement Control Order (MCO) March 18 when localized clusters began to emerge. All businesses were closed except for essential services. The restriction was then eased since early May, allowing certain degree of business as usual. However, aesthetic practice was not one of them. Currently, for those who started off seeing medical patients, teams are divided into 2, with shifts and rotation to avoid possible chances of infections among the work force. We also implemented screening of patients before they come for appointments. One patient, one room, one time, is being implemented as well, with minimal human to human contact. We encouraged our staff to get tested before starting work and also to retest if any possibility of getting infected. Vigilant screening is done, and the workplace is being disinfected very frequently.

Israel, Tel Aviv – Ofir Artzi

We were closed for 5 weeks. Before resuming activity, we undertook many measures and changes in all office spaces to allow physical distancing and to minimize possible virus transmission. A reminder call and a screening to identify potential infection is performed prior to patient arrival. In this call, we exclude any symptoms, exposures, or recent travel. The patient should fill and sign a disclosure form. High-risk patients and procedures are delayed at the moment. In this call, all protective measures taken are conveyed to the patient. We elaborate on the new protocol and the expected behavior – we remind the need to arrive on time and alone. We leave the accompanying person in the car outside unless special circumstances. No one enters the office spontaneously without an appointment. We measure temperature in the entrance and provide gloves and mask upon entry. We limit greetings to a smile, wave, and other non-contact gestures. The patients are taken upon arrival to a single treatment room. All supplies and relevant energy-based devices are prepared before patient entry. If possible, only one provider will be with the patient. We allow no more than one medical assistant in the room. Doors are closed – no going out and in when the patient is in. All pretreatment, treatment, and post treatment actions including payment are performed in this room. Payment (if not done) and scheduling of follow-up visit are made later by telephone. Between patients, we disinfect beds, chairs, surfaces, instruments, tables, doors handle, etc. Up to two weeks post procedure, we follow our patients (videoconference or telephone) both to monitor progress and to verify that no COVID-19 symptoms developed. Before treatment, the patient signs an appendix to the consent form. Whenever possible for all non-treatment interaction, telemedicine is used. We schedule 10–15 minutes per patient for first consultation. All existing data, medical records, pictures taken by the patient, are sent prior to this virtual meeting. A temporary summary of the conversation is documented. It is emphasized to the patient and in writing that the recommendations are based on a virtual appointment and thus are can be amended (including the cost) when meeting the patient in person. We reduced the number of patients by 20% but did not experience decrease in income because consultations are made in different time frame to save time.

South Korea, Seoul – Hosung Choi

South Korea had already experienced MERS five years ago, in 2015. During that crisis, we learned how to do epidemiological investigations of an epidemic, how to treat it, and how to prevent it. After MERS outbreak, South Korean CDC realized that persistent patient tracking and the transparency to the public are very important for a high level of quarantine. These preparations appear to have paid off and we were somewhat prepared for the new virus. The preventative measures being taken in South Korea have so far involved no lockdowns, no roadblocks, and no restriction on movement, only social distancing was recommended by the government. Therefore, I've never closed my clinic and only reduced my working hours for two months vol-

untarily. I think that early patient detection with accurate tests followed by isolation can lower the mortality and prevent the virus from spreading.

Appointments with allotted timeslot to allow disinfection of consult and treatment rooms in between. We are disinfecting regularly the entire clinic using proper disinfectants three times a day. All doctors and staff wear masks all the time when facing patients. (when consulting patients who are suspected of being infected with the COVID-19, N95 mask must be worn, otherwise wearing a dental mask is enough). We are measuring body temperature of every single patient who visits the clinic in order to protect not only patients, but also medical staff. We are actively informing our patients of our efforts to prevent the infection through text messaging or online media. There are thermal imaging cameras in the entrances to most major buildings in South Korea. Bottles of hand sanitizers have been placed in every lift.

Italy, Modena – Elena Rossi

In Italy, the lockdown started on March 8. Working both in the national health system and in private practice, I faced two very different scenarios. In our private practice, I continued to do urgent procedures in the first 2 weeks of March (ie, post-surgical follow-up, urgent consultations, no cosmetic). Then we closed until May 4. I managed contact with my patients mainly via WhatsApp, telephone, and emails. It was very important to try to keep a virtual relationship with more sensitive patients, not only to care for them medically but to reassure them about the general situation and help them not feel abandoned (mainly the eldest). Whatsapp was also a very nice tool also to follow up with some COVID-19-positive patients who showed signs of cutaneous rash. Now we resumed operations and we conduct non-urgent procedures (cosmetic included), but we increase time between patients and keep up with all the precautions (PPE, social distancing, disinfection).

Within the national healthcare system, we could continue to perform urgent consultations and surgical operations. Since the number of surgical sessions was reduced both for inpatient and outpatient, surgery was highly selective for melanoma, high risk squamous cell carcinoma, and rapidly growing nodular lesions. The situation in the OR has been changing day by day regarding the different protocols and safety measures. At first, there was a lack in PPE. Then depending on the anatomical areas and type of anesthesia (ie, general anesthesia procedures have high risk for contamination) we adopt different safety protocols and PPE: for inpatient going under general anesthesia the protocol the patient is tested in preadmission with blood test, chest-x-ray, and nasal swab before surgery. For outpatients, when the tumor is located on the face and the patient cannot keep the mask during surgery, the surgeon is recommended to keep both the N95 mask and the surgical mask on top of it. I also had the chance to work once a week supporting the coronavirus unit on the territory of my city.

DISCLOSURES

The authors have no conflicts of interest.

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