




Safety guidelines for nonsurgical facial procedures during COVID-19 outbreak

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Abstract

Background: The novel coronavirus (COVID-19) pandemic is expected to last for an extended time, making strict safety precautions for office procedures unavoidable. The lockdown is going to be lifted in many areas, and strict guidelines detailing the infection control measures for aesthetic clinics are going to be of particular importance. **Methods:** A virtual meeting was conducted with the members (n = 12) of the European Academy of Facial Plastic Surgery Focus Group to outline the safety protocol for the nonsurgical facial aesthetic procedures for aesthetic practices in order to protect the clinic staff and the patients from SARS-CoV-2 infection. The data analysis was undertaken by thematic and iterative approach.

affiliations, knowledge, or beliefs) in the subject matter or materials discussed in this manuscript.

Results: Consensus guidelines for nonsurgical facial aesthetic procedures based on current knowledge are provided for three levels: precautions before visiting the clinic, precautions during the clinic visit, and precautions after the clinic visit.

Conclusions: Sound infection control measures are mandatory for nonsurgical aesthetic practices all around the world. These may vary from country to country, but this logical approach can be customized according to the respective country laws and guidelines.

KEYWORDS

aesthetic clinic, aesthetic medicine, consensus guidelines, coronavirus, COVID-19

1 | INTRODUCTION

The COVID-19 outbreak, caused by the SARS-Cov2 virus, has had an unprecedented impact on global health systems.¹⁻¹⁹ The economic burden induced by lockdowns will need to be carefully mitigated by “next phase” responses, which will vary with country and viral burden. While many medical practices are being run with online consultations,¹⁰ some countries have recently decided to allow the opening of practices requiring one-on-one contact like dental, physiotherapy, for emergencies provided they strictly follow the guidelines detailing the infection control measures.^{12,13}

Facial aesthetic nonsurgical procedures, although having a well-documented impact on quality of life, are not considered essential medical services and conscious efforts should be made to minimize infection in this sector. The nature of our work carries a very high inherent risk of contagion for both patient and practitioner.

Due to the primary involvement of the face and neck, specifically the perioral and nasal regions, and our field is at a particular occupational hazard due to the risk of aerosol-generating procedures.^{13,14} Strict global measures are constantly evolving, and discrete guidelines need to be instituted and kept current. In our largely elective field, both staff and resources should ideally be allocated through careful protocols in order to prevent COVID-19 infection.

2 | METHOD

2.1 | Focus group composition

The International European Academy of Facial Plastic Surgery (EAFPS) focus group (FG) is composed of 12 facial plastic surgeons and dermatologists from Germany, India, Italy, Lebanon, Netherlands, South Africa, Turkey, and the UK.

2.2 | Focus group methods

The FG members have discussed recommendations for resuming elective nonsurgical facial aesthetic work using a topic guide. The virtual meeting was led by a facilitator (DB) and contemporaneous notes were recorded by another author (ER). The facilitator used

a topic guide to ask the group members to explore the problem in question and factors for mitigation.

The topic guide was developed by the lead author after thorough literature review and cross-checking with available guidelines in different specialties.

To minimize the number of the prompts and equal participation, the facilitator used an open questioning style.

2.3 | Analysis

The transcriptions of the discussion were subsequently analyzed by a multidisciplinary research team in form of iterative and thematic approach. During this process, data were verified systematically, discussion was made around the interpretive analysis and exploring the potential research bias.

3 | RESULT

Various steps were recommended in order to deliver a safe elective service, with inputs from the public and private health systems of many countries. In addition to the respective country recommendations, these guidelines hope to guide the “next phase” after the lockdown ends. The recommendation was divided into three phases for both the patients and healthcare professionals (HCPs).

- Level 1. Guidelines “before” the visit to the clinic.
- Level 2. Guidelines “during” the visit to the clinic.
- Level 3. Guidelines “after” the visit to the clinic.

3.1 | Level 1: Guidelines “before” the visit to the clinic

3.1.1 | Patient

Patients should be furnished with concise, simple information regarding household behavior and the risk of contagion and transmission. It is crucial to provide patients with straightforward and clear



FIGURE 1 A, Patient entering the clinic; (B): patient waiting outside the clinic; (C): Patient's temperature is going to be measured



FIGURE 2 A, Patient waiting in the opportune area; (B): patient washing face and hands; (C): patient receive t-shirt, hair band and a surgical mask



FIGURE 3 A, Patient taking pictures; (B): patient dress in the plastic bag in the dress deposit; (C): patient going to office after photo wearing hair cap



FIGURE 4 Patient treatment with Doctor

information for precautions at home regarding coronavirus infection prevention. The SARS-CoV-2 virus is transmitted primarily via large droplet spread with a range of approximately 2 m, and the infection rate is known to decrease with social distancing and the wearing of at least surgical masks¹⁻¹⁹. The appointment should thus be scheduled well in advance with the recommendation of social distancing and avoidance of hospital visits or contact with COVID-19 positive cases. Two days before the appointment, patients should receive an e-mail with a protocol on the office routes, they will have to follow (Schemes 1 and 2) and some forms to be filled and returned 12 hours before the appointment (Scheme 3). Vital information relates to COVID-19 contact, quarantine or symptoms during the preceding 15 days. One primary information that is essential to obtain is a declaration that the patient has not been in quarantine and has not had coronavirus

symptoms in the last 15 days. If the answer to any of this is definite, the doctor must order a COVID-19 test for the patient. Another option is to postpone the procedure for at least 2 weeks.

3.1.2 | HCP and STAFF

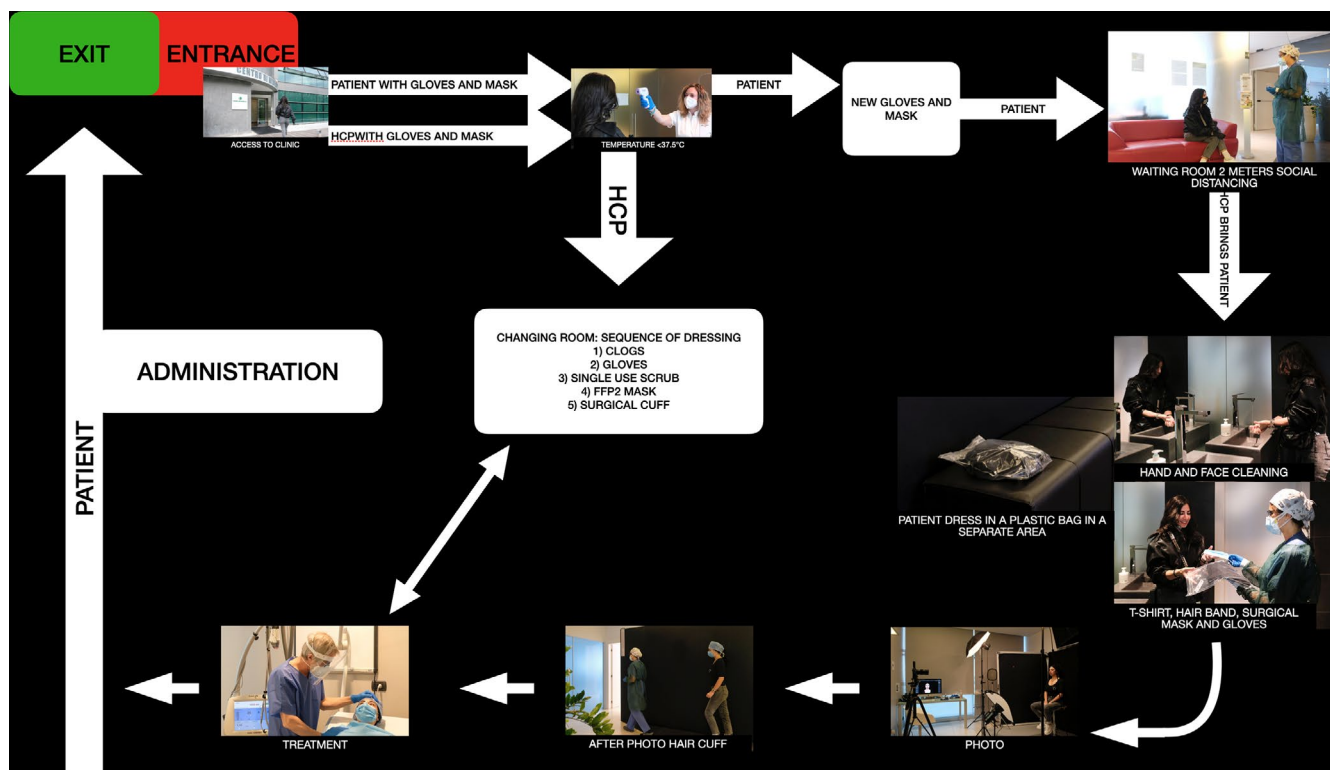
The enclosed brochure (Scheme 4) may be distributed via e-mail, WhatsApp, we chat or any other encrypted electronic means. A virtual appointment or telemedicine is alternative for scheduling a screening appointment upfront, with form regarding epidemiological and clinical questions to be sent to the patient that must be filled and re-submitted 2 days prior to the appointment (Scheme 3). Patients with positive answers or suspected of infection need to undergo ELISA tests (blood samples) and swabs the 24 hours before scheduled appointment in order to get approval. Despite negative results, these patients are requested to self-quarantine and practise social distancing because of their suspicious symptoms.

3.2 | Level 2: Guidelines “during” the visit to the clinic

3.2.1 | Patient

Patients are requested to attend alone, without accompanying persons or family members or pets. They must attend wearing surgical masks and gloves, are requested to respect scheduled

appointment times and (Figure 1A) asked to wait outside the office when not (Figure 1B). Absolute respect for the schedule is a requirement, and patient turnaround time must be planned. People coming before or after a given time will be asked to wait outside the office or in their cars. A series of predetermined in-office routes must be decided, and patients should get access only by following these routes. These predetermined in-office routes must be decided with patients having access to only these. Temperature testing (Tympanic or infrared device) (Figure 1C) should be completed before access to waiting areas where a minimum of 2 m between patients and 10 m² per person, should be maintained (Figure 2A). As soon they get to the waiting area, they will be then requested to follow a HCP who guides them to a room where they wash their hands and face (Figure 2B), they may be supplied with a labeled t-shirt (cost is 10 euros or 12 US dollars which we give them as a gift) which they may keep after the treatment (Figure 6). After disinfecting hands and applying a headband, they progress to photography (Figure 2C). If the toilet is used, it should be flushed while the seats are covered by the lid to prevent any aerosolization.²⁰ Following that, they wear a hairband, disinfect their hands, and are guided to see the photographer where appropriate (Figure 3A). Meanwhile, we store their clothes and personal belongings if any, in a designated box or a plastic bag (Figure 3B) After the photograph session, an additional hair cuff is supplied and patient is directed to the treatment room. (Figure 3C). One hour per appointment is allocated to each procedure, irrespective of whether for consultation or facial treatment (injection, laser or medication) (Figure 4). The face is disinfected



SCHEME 1 entering exiting the clinic

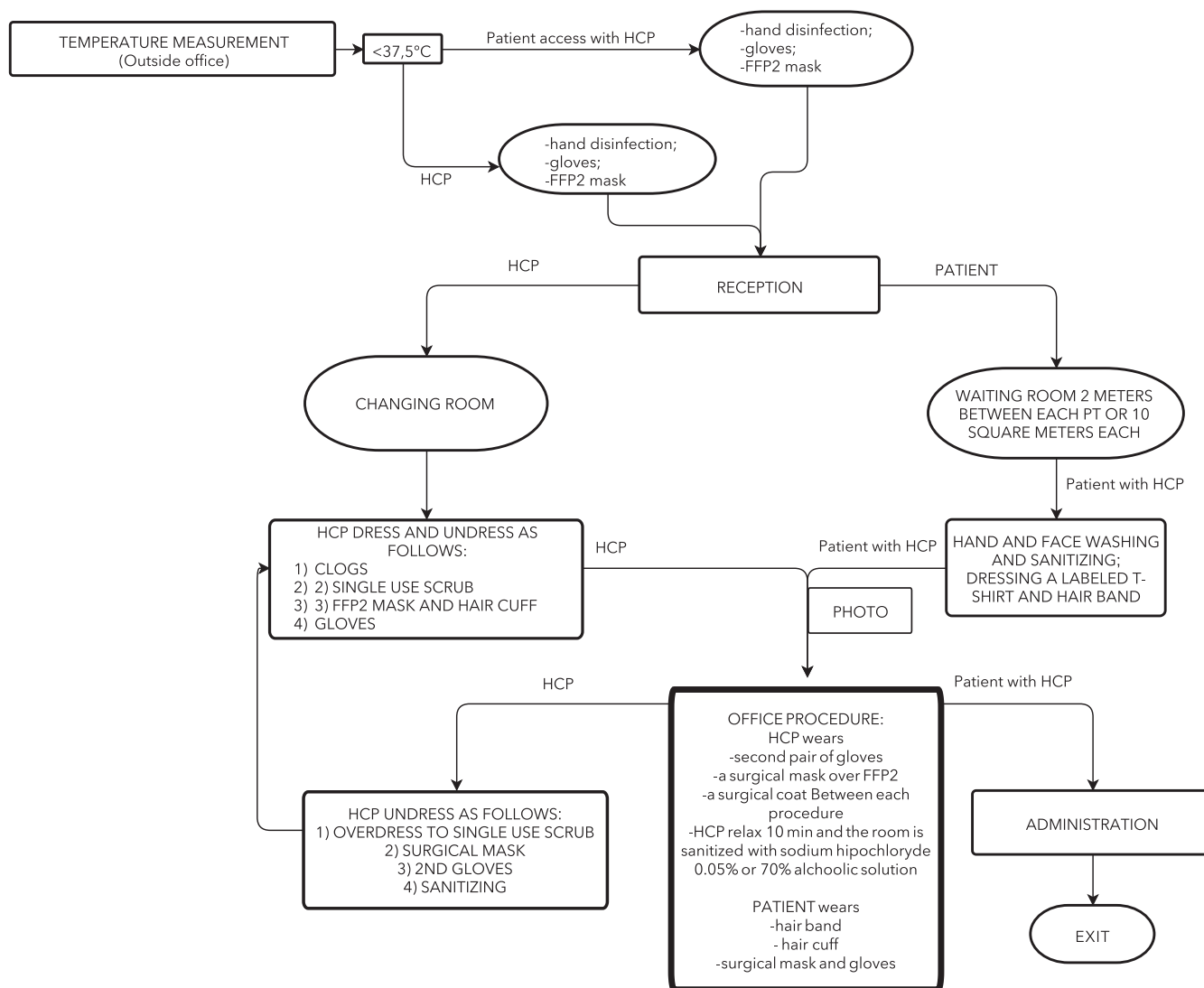
with sodium hypochlorite 1% solution. At the end of their session, the patient exits the office, will collect the plastic bag with their belongings from a separate room, and go to administration before leaving the clinic. It is strongly recommended that all financial transaction is carried out by electronic means avoiding physical handling of money or payment cards.

3.2.2 | HCP and STAFF

Healthcare professionals follow preferably a different in-practice route, and, at the beginning of the working day, changing into single use scrubs, FFP2 (N95) masks and additional surgical masks over them (which, along with gloves and hair cuff, has to be changed for every patient). Eye shields or protective glasses are recommended to be cleaned with sodium hypochlorite 1% after every patient consultation. If a nasal or intraoral procedure

is requested (filler or medication) 0.23% povidone-iodine solution, which is virucide, may be used in a dosage of two sprays per nostril before entering the office.²¹ Oral rinse with the same solution may be used, as may eye drops of 1 drop diluted 1:100 (povidone-iodine 10%).

Plastic/Acrylic windows panels or glass partitions should be used to decrease staff and HCP exposure.²² In order to avoid contamination in any area of the office, all unnecessary material should be removed (leaflets, magazines, covers, water fountains, dresses, etc). In order to avoid contamination by walking frequently between different areas, it is recommended that hand sanitizers and hand-washing facilities are readily available in all patient and staff areas and clinic staff which is encouraged to use it with high frequency making the rule of 1 glove which is the "new skin" and a second glove which is patient related and is going to be changed at every procedure. The same rule applies to water bottles and disposable glasses.



SCHEME 2 entering exiting the clinic

CLINIC LOGO	
CLINIC NAME Non surgical and surgical treatments AUTOCERTIFICATION AND AUTOEVALUATION FOLDER SARS-CoV-2 PRELIMINARY INFORMATIONS	
NAME	FIRST NAME
PATIENT RECORD Have you ever noticed the following symptoms in the last 14 days?	
<p>MAIN SYMPTOMS</p> <ul style="list-style-type: none"> • Temperature >37,5° YES <input type="checkbox"/> NO <input type="checkbox"/> • Cough YES <input type="checkbox"/> NO <input type="checkbox"/> <p>OTHER SYMPTOMS</p> <ul style="list-style-type: none"> • Fatigue YES <input type="checkbox"/> NO <input type="checkbox"/> • Throat pain YES <input type="checkbox"/> NO <input type="checkbox"/> • Headache YES <input type="checkbox"/> NO <input type="checkbox"/> • Muscle pain YES <input type="checkbox"/> NO <input type="checkbox"/> • Nasal congestion YES <input type="checkbox"/> NO <input type="checkbox"/> • Nausea YES <input type="checkbox"/> NO <input type="checkbox"/> • Vomit YES <input type="checkbox"/> NO <input type="checkbox"/> • Loss of taste and smell YES <input type="checkbox"/> NO <input type="checkbox"/> • Eye symptoms YES <input type="checkbox"/> NO <input type="checkbox"/> • Diarrhea SI <input type="checkbox"/> NO <input type="checkbox"/> 	
EPIDEMIOLOGICAL FEATURES	
<p>ASCERTAINED EXPOSURE TO PATIENTS AFFECTED BY COVID 19 (positive swap) YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>ASCERTAINED EXPOSURE TO SUSPECTED PATIENTS AFFECTED BY COVID 19 YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>CONTACTS WITH PARENTS SUSPECTED OF COVID 19 YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>COHABITANTS WITH TEMPERATURE OR FLU (no SWAP) YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>CONTACTS WITH TEMPERATURE OR FLU (no SWAP) YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>CONTACTS WITH HOSPITALE, CLINICS AND HEALTHCARE PROFESSIONALS WITH POSITIVE CASES YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>ACTIVE WORK YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>If yes <input type="checkbox"/> SMART WORKING <input type="checkbox"/> WITH OTHER PEOPLE</p> <p style="padding-left: 100px;"><input type="checkbox"/> WITH PROTECTIVE DEVICES</p> <p style="padding-left: 100px;"><input type="checkbox"/> WITHOUT PROTECTIVE DEVICES</p>	
<p>TRAVEL YES NO</p>	
<p>I,....., hereby declare that the information provided is complete and accurate. I</p> <p><input type="checkbox"/> I am visiting the clinic with full knowledge that we are going through a COVID-19 global pandemic. There is always a risk of contracting this virus when I am visiting a place during this pandemic. There is a possible risk of getting this virus by visiting any place during this pandemic. I have been fully explained the content of this declaration form in a language that I can understand.</p> <p><input type="checkbox"/> I authorise to treat my personal data and whatever information on my personal and clinical situation with respect to the law (CUSTOMISE TO COUNTRY LAW).</p> <p>I hereby absolve Drand the team members of clinic/institution of any criminal or medicolegal liability arising due to my visit to the clinic. I hereby give my consent for this.</p> <p>date _____</p> <p style="text-align: right;">Patient's signature Signature of the spouse/partner Signature of the attendant</p> <p>Doctor signature _____ Witness signature _____</p>	

Model taken and modified from a a template done by the multiple Italian societies of medical esthetics
COLLEGIO ITALIANO DELLE SOCIETA' SCIENTIFICHE MEDICINA ESTETICA (SIME, AGORA, SIES); April 29, 2020.

SCHEME 3 pre test for the patient access to the clinic

To Know: What is the new Coronavirus?

Coronaviruses are a large family of viruses that cause illness ranging from the common cold to more severe diseases. The novel coronavirus is a new strain, not previously identified in humans. COVID-19 is the infectious disease caused by the latest discovered coronavirus (SARS-CoV-2).

How does the virus spread?

People can get affected by COVID-19 from others who have the virus through inhaling small droplets from people with COVID-19 who cough or sneeze or through touching contaminated surfaces, cough, sneeze or breathing in risk areas.

What are the symptoms?

The symptoms include a combination of:

- Fever >37,5°C
- Cough
- Breathing Difficulties
- Diarrhea
- Anosmia
- Muscle Pain
- Tiredness

Isolation: What is the new Coronavirus?

For people with mild symptoms of COVID-19, hospitalization may not be necessary. Instead, healthcare providers may recommend isolation at home, to limit further spread of the virus.

Isolation at home, self-isolation or home isolation means remaining at home or in a designated setting, in a single, dedicated, adequately ventilated room and preferably using a dedicated toilet. This measure can be recommended for people while showing symptoms or for a certain period of time.

While in home isolation, observe the following rules:

- Do not allow visitors.
- Only household members who are caring for the person suspected or confirmed of having COVID-19 should stay at home.
- Separate yourself from other people in the household. Use facemasks, if you have one, when in the same room with other people, to protect them.
- Stay in a well-ventilated room with a window that can be opened.
- If a dedicated toilet is not available, the isolated person should clean the toilet thoroughly after each use.
- Use separate towels, eating utensils, drinking glasses, bedding or any other household item commonly shared in the family setting.
- Activate your support system: ask friends, neighbours or community health care workers for help to run essential errands, e.g. grocery and medicine shopping.
- Avoid direct contact when interacting with them, for example, by arranging groceries to be dropped at the door. Wash hands directly before and after any interaction with others.
- Follow the advice of your healthcare provider and call them if your condition worsens.

To prevent and prepare yourself:

Educate yourself on COVID-19 from trusted sources. Keep physically active to ensure good physical condition.

Have over-the-counter medicines and medical supplies (e.g. tissues, thermometer) to treat fever.

If taking any prescription medicines, refill them, or consider using a mail-order for your medications. Have enough groceries and household items for approximately 2-4 weeks. Prepare gradually and avoid panic buying.

Activate your social network. Contact family, friends, neighbours or community health care workers in advance and make joint plans on what to do when COVID-19 is spreading in your community or if you become ill.

Practice social distancing if COVID-19 is spreading in your community:

- Avoid crowds, especially in confined and poorly ventilated spaces.
- Do your grocery shopping at off-peak hours.
- Avoid using public transport during rush hours.
- Exercise outdoors instead of indoor settings.

Follow instructions from national authorities on how to prepare for emergencies.

Continue to practice general hygiene.

Quarantine:

Quarantine refers to the separation and restriction of movement of people who have potentially been exposed to COVID-19, but who are currently healthy and do not show symptoms. In general, quarantine is mandatory and is mainly at home, duration is minimum 14 days, but in specific situations can be done in a hospital or in dedicated facilities.

If you are required or recommended by authorities to quarantine at home, please take into consideration the following: Practice social distancing if COVID-19 is spreading in your community:

- Stay at home (i.e. don't go to work, school or public places) and:
- Self-monitor for appearance of COVID-19 symptoms, including fever of any grade, cough or breathing difficulties. If symptoms develop, call your local health care services for advice.
- If you become ill with symptoms of cough, fever and breathing difficulties, use medical facemasks, to protect those around you from getting infected.
- Arrange with your employer to work from home, if possible.
- Clean and disinfect your home, particularly frequently touched surfaces and toilettes.

Activate your support system: ask friends, neighbours or community health care workers for help to run essential errands, e.g. grocery and medicine shopping.

Keep in touch with family and friends via telephone, email or social media.

Keep yourself informed on COVID-19 from trusted sources.

Keep physically active to ensure good physical and mental condition.

SCHEME 4 informations for the patient

3.3 | Level 3: Guidelines “after” the visit to the clinic

3.3.1 | Patient

Limiting face-to-face interaction with nonfamily members will remain a challenge in the immediate postoperative period and should

be clarified upfront in the pre- and postoperative procedure form. Compliance in this regard remains the responsibility of the patient (Scheme 3). A reduced frequency of posttreatment visits is recommended, with avoidance of unnecessary hospital encounters. The day after procedure, patients may send a photograph via WhatsApp or any other encrypted electronic method and communicate with an assistant

regarding body temperature and clinical conditions. This is assessed in a week again, and further follow-up is arranged as appropriate.

3.3.2 | HCP and STAFF

Following every procedure, the HCP removes her/his shield, surgical masks and double gloves. Whenever possible, the window is opened for 10 minutes while a professional cleans and disinfects all devices and room with 1% sodium hypochlorite or a phenolic detergent three to four times a day. They should be well trained in hand hygiene protocols.²³⁻⁴⁰ This is ideally done while another patient is having photographs taken. Air disinfection can be further achieved with UV or O3 devices.⁴¹

A minimum of 10 minutes for HCP to relax is recommended. All routine postoperative care ought to be completed via video consultation which is done between noon and 1 PM or 7 PM to 8 PM at scheduled days.

4 | DISCUSSION

During the current COVID-19 pandemic, at the very first weeks, all nonessential procedures were provisionally suspended worldwide, with re-allocation of resources in many public and private hospitals. In-office consultations and procedures were thus not possible. Closure of surgical theaters constituted a further preventive measure for the wide viral spread and peak particularly in China, Europe, and the USA. Currently, preliminary epidemiological experience even in high-risk areas shows that spread is mitigated by wearing appropriate mask as a personal preventive device as well as correct hand sanitizing.¹⁻⁴⁰ Furthermore, every medical specialty has started to develop protocols to protect staff and patients.

In response to this pandemic, our FG has developed a process to stratify procedures and clinical levels with protocols that aim to minimize the risk of contagion and the diffusion of COVID-19 infection.

5 | LIMITATION

The present study has several limitations. Although the author has utilized widely accepted method of Expert FG discussion, it is often mentioned that they act as "Expert and Judge".⁴² Also, because of the qualitative nature of the interpretation, to address the reflexivity and Hawthorne effect, the analysis was based strictly on the transcription, critical appraisal of the literature and multidisciplinary research analysis⁴³ to minimize bias.

6 | CONCLUSION

Although, finding an optimal guideline in limited timeframe remains elusive, Nonetheless, the present first ever clinical safety guideline

for the nonsurgical facial aesthetic procedures can help designing conceptual framework for the COVID-19 safety guidelines in aesthetic practices across the globe.

CONFLICT OF INTEREST

None declared.

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