

Effectiveness of Preventive Measures against Coronavirus Disease of 2019 in a Plastic Surgery Unit at the Epicenter of the Pandemic in Italy

The coronavirus disease of 2019 (COVID-19) emerged in China in December of 2019 and was declared a pandemic by the World Health Organization on March 11, 2020. Since February 21, when the first case of coronavirus was confirmed in Italy, the infection has spread diffusely. As of March 24, more than 350,000 cases and 16,000 deaths have been reported worldwide¹; in Veneto and in Padova, two of the epicenters of infection in Italy, there have been 6442 and 1636 confirmed cases, respectively.²

Respiratory droplets of affected patients are considered the main cause for diffusion of the disease.³ According to American Society of Plastic Surgeons recommendations, plastic surgeons should cease nonessential medical, surgical, and dental procedures, thus reducing their exposure to aerosol-generating procedures such as rhinoplasty. However, the risk should be considered in case of complex head and neck reconstructive procedures. Nevertheless,

Bai et al. reported transmission among asymptomatic patients,⁴ which was confirmed by a screening performed by our university in the middle of March (unpublished data, preprint not peer reviewed, April 2020).

Preventive measures are recommended to reduce the spread of infection among healthcare providers, but there is still a debate regarding their effectiveness. Even if there are clear indications for the use of personal protective equipment for the treatment of patients with coronavirus disease undergoing aerosol-generating procedures, the usefulness of surgical masks, frequent hand sanitizing, and safety distance precautions is often underestimated.⁵

To better understand the impact and risks of coronavirus disease, we created a group study, Plastic Surgeons Against Covid-19 (PSAC group), and we would like to share our experience in dealing with oncologic and traumatic cases in the middle of the pandemic explosion in Italy. We believe that our preventive protocol (Fig. 1), together with quarantine of all suspected asymptomatic cases, allowed us to perform our daily

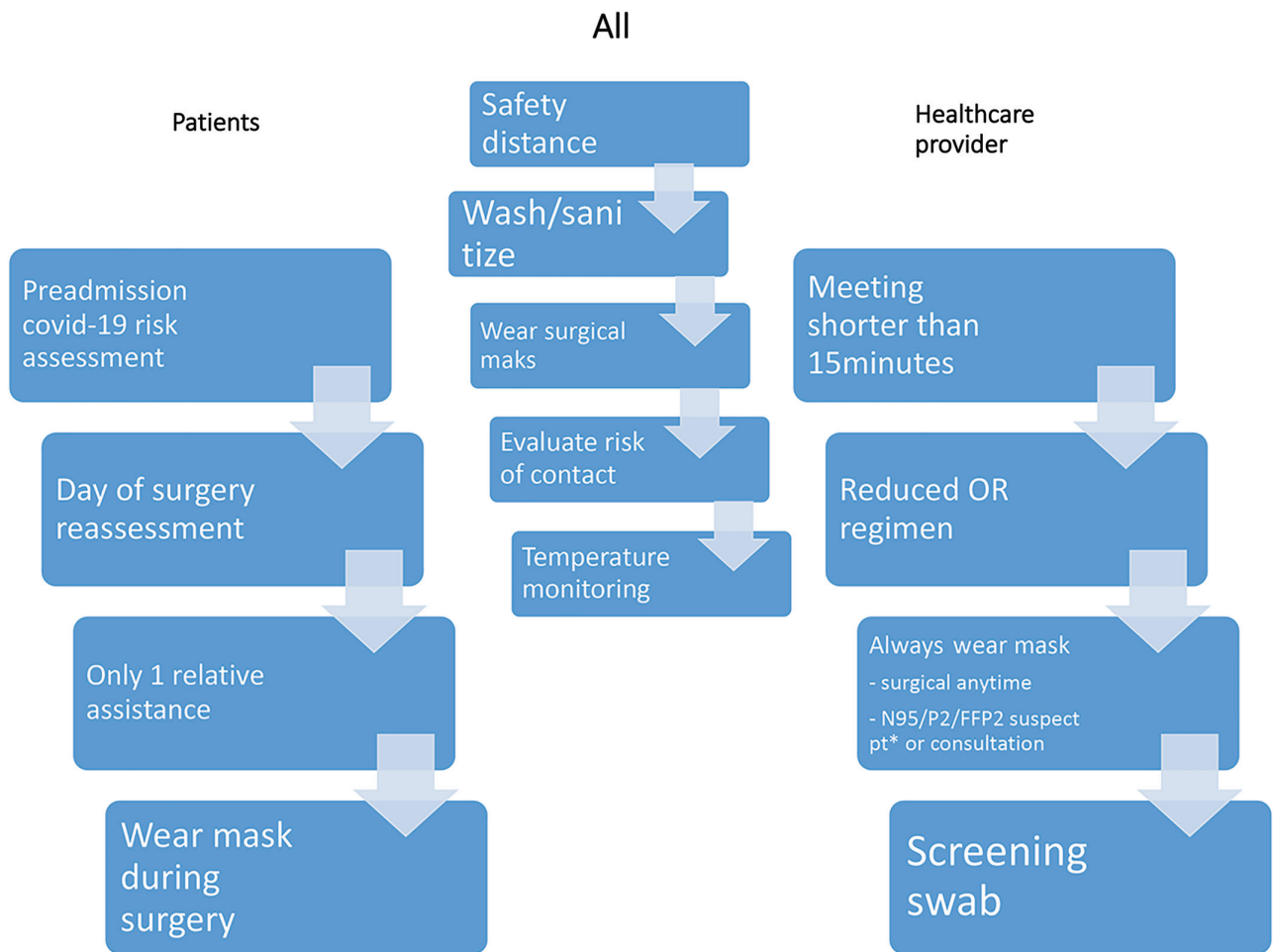


Fig. 1. Preventive protocol of the plastic surgery unit. *Suspect patients are considered asymptomatic patients with possible contact of a confirmed case of coronavirus disease. All symptomatic patients are in active quarantine and screened in the emergency room. OR, operating room.

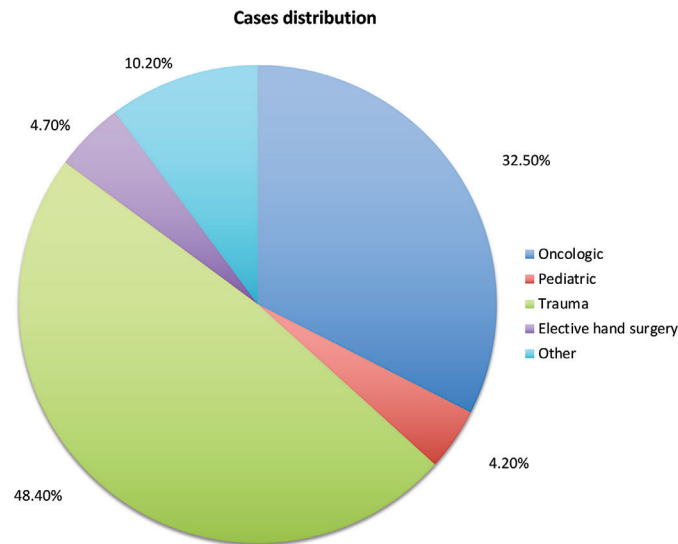


Fig. 2. Report of the procedures performed in the operating room in the past month from the beginning of the diffusion of the virus.

tasks and minimize the risk of infection of healthcare providers.

Two hundred fifty-six surgical procedures (Fig. 2), 1581 outpatient office visits, 58 plastic surgery consultations, and more than 40 burn cases were performed in our unit in the past month, even with a reduction of procedures aimed at freeing up as many anesthesiologists as possible to treat infectious patients. The screening swabs performed on all surgeons, nurses, and administrative personnel in our unit resulted in negative results for coronavirus (89 swabs). Only one nurse of our group developed COVID-19, 4 days after his relocation as nurse to the infectious disease department.

This result appears to be in contrast with the percentage of asymptomatic cases collected in our region.² We believe that it could be related to the application of a strict protocol of prevention.

The lack of agreement on the selection and use of masks could affect the consistent use of personal protective equipment, especially when the diffusion is about to start and many healthcare providers misjudge the risk of infection. On the contrary, it is the prompt application of all preventive measures that can prevent intrahospital spread of infection.⁵ Our experience could be of value for colleagues who are still performing oncologic and trauma cases worldwide.

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Federico Facchin, M.D.

Carlotta Scarpa, M.D., Ph.D.

Vincenzo Vindigni, M.D., Ph.D.

Franco Bassetto, M.D.

Plastic and Reconstructive Surgery Unit
University of Padova
Padua, Italy

Correspondence to Dr. Facchin
Plastic and Reconstructive Surgery Unit
University of Padova
Via Nicolò Giustiniani, 2
Padua 35128, Italy
federicofacchin@yahoo.it
Facebook: Franco Bassetto

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DISCLOSURE

The authors have no financial interest to declare in relation to the content of this article.

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