

# The role of the general surgeon in a Respiratory Care Unit in the 2020 pandemic

## *El rol del cirujano general en una Unidad de Cuidados Respiratorios en la pandemia de 2020*

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### ABSTRACT

The COVID-19 pandemic has affected politically, economically, and socially all countries in the world. The health systems have collapsed, and this has forced the reconversion of hospitals but also of health personnel. This article reflects the role that many general surgeons have had to assume in many hospitals in Mexico to join the fight during the pandemic.

### RESUMEN

La pandemia por COVID-19 ha afectado política, económica y socialmente a todos los países del mundo, los sistemas de salud han colapsado y esto ha obligado a la reconversión de hospitales, pero también del personal de la salud. En este artículo se plasma el rol que, en muchos hospitales en México, han tenido que asumir muchos cirujanos generales en el afán de sumarse a la lucha durante la pandemia.

On December 31, 2019, the Wuhan Municipal Health Commission (Hubei Province, China) reported a cluster of pneumonia cases in the city. They were subsequently determined to be caused by a new coronavirus.<sup>1</sup> On February 27, 2020, the first case was confirmed in Mexico,<sup>2</sup> and on March 11, 2020, the World Health Organization (WHO) declared COVID-19 a pandemic.<sup>3</sup>

After seven months, more than 16 million confirmed cases and more than 600,000 deaths had been reported.<sup>4</sup> COVID-19 has changed how the world has been understood until today, global health systems have been overwhelmed, and the social, economic, and political consequences have pushed even the world powers to their limits. Despite the efforts of the "Solidarity" trial and the many ongoing investigations, we have yet to find a fully effective therapy.

In the surgical setting, research has focused on the risk of surgery in infected patients and concluded that postoperative pulmonary complications occur in half of the patients with perioperative SARS-CoV-2 infection and are associated with high mortality, suggesting the need to postpone non-urgent procedures and promote non-surgical treatments to delay or avoid the need for surgery.<sup>5</sup> Also discussed was the need for adjustments to the operating rooms, the suspension of the outpatient clinic, personal protective equipment, some modifications to informed consent, and other aspects of patient and surgical staff safety. If only that were the focus of the discussion, if only the pandemic had not hit so hard.

In Mexico, as in most developing countries, the pandemic has brought devastating consequences; a historically forgotten health system could not contain the brutal onslaught

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of the pandemic. From the largest institutes to health centers, caring for patients infected with SARS-CoV-2 became Mexico's focal point of public health. This situation led not only to the reconversion of hospitals but also to the reconversion of healthcare personnel.

Initially, the first line of defense for these patients was composed of intensivists, pulmonologists, internists, and infectious disease specialists. However, there are not enough specialists in Mexico capable of caring for the number of patients that day by day was added to the long list of hospitalized patients with severe infections. In addition, the personnel in contact with these patients had eventually become ill and, in some unfortunate cases, died, which reduced the already limited number of qualified physicians to attend to patients.

Thus, many hospitals in Mexico have found it necessary to rely on physicians from other areas for care in respiratory care units. Because of his experience in the treatment of septic patients, shock, fluid, and electrolyte management, in the care of postoperative patients, in addition to the skills for performing invasive and surgical procedures, the general surgeon became an ideal element to be part of the second line of defense of care, or first in some cases. So we went from worrying about how to adapt our operating room to deciding the most appropriate therapy for the patient with pneumonia in our care; we went from treating the patient with sepsis of abdominal origin to sepsis of pulmonary origin; we went from being part of a surgical team to a perfectly organized multidisciplinary team that worked side by side to treat patients with a severe SARS-CoV-2 infection, acute respiratory distress syndrome, and all the organic alterations derived from this disease.

This improvised but capable and willing team of intensivists, internists, anesthesiologists, and general surgeons fully involved in the Respiratory Care Units fulfills roles assigned to provide comprehensive care to sick patients. This team allows an anesthesiologist to intubate, an intensivist to resuscitate, and a surgeon to place a central venous catheter and an endo pleural probe in the same setting, thus saving time for the patient and reducing the

possibility of errors that could lead to medical complications and contagion among the staff.

This model of care is proof of the capacity of general surgeons to care for critically ill patients and of the adaptability to which Mexican physicians have responded due to the social context in Mexico.

May this pandemic serve as a watershed for governments to become aware of the importance of strengthening health infrastructure and human and material resources in Mexico. It remains for reflection: that in the face of scenarios as bleak as this one, teamwork is more robust than any individual and that the common good goes beyond the differences that may exist between specialties; for the hospitals that train residents, they recognize the need to continue training the general surgeons and specialists capable of caring for the critically ill patient; for universities, to consider the need to create curricula that adapt to the changes in the current world health panorama; and for the general population, to meditate on the urgency of modifying lifestyle habits that will lead us to become a healthier society, making us less vulnerable to this and many other diseases.

The days passed, and the scenario became more and more complicated. Doctors from all areas are dedicating all their efforts to the fight against COVID-19. We are going to win, despite all the adversities and how long the road may seem, we are going to win, and if it lasts, we surgeons will be there.

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