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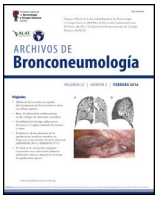

Editorial

# COVID-19 and Pulmonology in the XXI century: Challenge or Opportunity?☆

## COVID-19 y la neumología del siglo XXI: ¿reto u oportunidad?

Since the beginning of the year, communities all over the world from Asia to America have seen their lives, customs, daily habits, personal relationships, and ways of interacting with each other and with the outside environment suddenly turned upside down with no time for reflection, all because of Covid-19 (coronavirus disease, caused by the SARS-VOC-2 virus that was first identified in humans at the end of 2019). In Spain, too, the "state of alarm" declared on 14 March 2020 has led to drastic changes in the fabric of our daily lives from both a personal and a professional point of view. Absolutely, all economic activities and professions in our society have been affected to a greater or lesser extent. Some have seen their activity diminish, as certain jobs could not and even still cannot be performed normally and may continue to be seriously compromised in the coming months, while other professions were affected by overwork and, above all, by overcommitment.

In all European countries and in a very special way in Spain, the enormous burden of responsibility and work imposed by the Covid-19 pandemic on the healthcare system is borne mainly by the staff of public hospitals, and the term "health emergency" is now used by both the general public and by the media to introduce the most important pandemic-related daily news. But what is the health emergency specifically, and who exactly does it affect? Which groups are behind this health emergency? At the end of March 2020, the emergency departments of the vast majority of public hospitals witnessed an unprecedented influx of patients, mostly Covid-19 carriers. Healthcare systems were overwhelmed to the point of collapse both in terms of physical space and their ability to treat patients to the expected quality standards. This was compounded by the loneliness inherent in the pandemic, as patients could not be accompanied during their emergency visits or hospital stays. The social distancing required for safety between patients themselves and health personnel proved impossible to implement and increased contagion rates.

In the first wave of this new entity (which continues to surprise us), the most dominant clinical manifestation has been severe life-threatening respiratory involvement. Patients were presenting in emergency rooms with asthenia, chest pain, fever, and severe dyspnea that often became impossible to control with conventional measures within less than 48 h, generating the need for ventilatory support and invasive measures.[1,2] Across the country the country, the demand for intensive care unit (ICU) admission exceeded capacity in the first week, so existing resources had to be expanded with the support of anesthesiology departments. Within less than a fortnight, these departments were also overwhelmed, particularly in cities where the availability of ICUs beds was rapidly exhausted. At this point, respiratory medicine departments with their experience in non-invasive mechanical ventilation (NIMV) began to play key role.[2]

During this period, pulmonologists provided ventilatory support to hundreds of patients either because their underlying conditions ruled out invasive measures, or simply because there were no ICU beds available. NIMV offered a significant number of patients relief from their respiratory failure, while for others it provided life support while awaiting admission to an ICU.[2] Pulmonologists are still battling Covid-19, offering unfailing support to ICUs by performing bronchoscopies to free the airways of secretions and facilitating the early discharge of patients, also thanks to NIMV.[2] Many patients have already been discharged with potential sequelae which have not yet been determined, but which we suspect will develop. The situation is worrying, so dedicated outpatient clinics are now being set up in all hospitals to closely monitor and follow-up these patients.

This scenario has highlighted the importance of pulmonology in Spain and its relevance and impact on the control of the Covid-19 pandemic in recent months. We would like to emphasize that many of the patients presenting with dyspnea and found to have respiratory failure requiring ventilatory support[2] are now either in standard hospital wards, having been discharged from the ICUs or Intermediate Respiratory Care Units (IRCUs), or else back home, thanks in large part to the efforts of the pulmonologists working in various Spanish public hospitals.

We believe that this experience, coupled with the possibility of new waves of Covid-19 pneumonia and the need to monitor for sequelae, has shown that pulmonology, with its specific diagnostic and therapeutic tools, in particular bronchoscopy, lung function testing, and thoracic ultrasound,[2–4] should be considered a major specialty in modern medicine. Furthermore, we pulmonologists are best qualified to supervise the monitoring and follow-up of the possible respiratory sequelae of these patients.

We hope that together we will be able to take advantage of this opportunity that has been given to all health professionals

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dedicated to the management of patients with chronic and acute respiratory diseases, such as Covid-19. It is up to us to to take advantage or to take the maximum benefit the maximum benefit from the lessons learned by the pandemic in order to develop and affirm the position and relevance of pulmonology and respiratory departments in our society; after all, no one can live – let alone survive – without breathing. As a scientific society, it is our responsibility to call on the health authorities to provide us with the material and human resources we need to carry out our professional work to the required standards of care to minimize the consequences of this disease and to continue to serve patients with respiratory diseases, patients with other respiratory diseases.

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## Conflict of Interest

None.

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