

COVID-19: 5 years later from the INER

COVID-19: desde el INER, un lustro después

Juan C. Vázquez-García

Coordinación de Investigación Educativa y Medicina Basada en Evidencia (CIEMBE), Dirección de Enseñanza, Instituto Nacional de Enfermedades Respiratorias Ismael Cosío Villegas (INER), Mexico City, Mexico

Five years ago, on January 1, 2020, the world welcomed the new year with news of a novel respiratory disease from Wuhan, China, apparently of infectious origin, transmissible between individuals, and potentially severe. By the end of that month, the World Health Organization (WHO) had already declared a public health emergency¹. During the first weeks of this emergency, its viral origin was also confirmed; a novel coronavirus causing what was termed severe acute respiratory syndrome (SARS)². On February 11, 2020, the International Committee on Taxonomy of Viruses (ICTV) designated this novel virus as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), and the WHO officially named the disease COVID-19 (coronavirus disease 2019). The name of this novel virus stemmed from its genetic relationship with the coronavirus that caused SARS in 2003, also originating in China, in the southern part of the country, in the city of Guangdong².

On February 27, 2020, the National Institute of Respiratory Diseases Ismael Cosío Villegas (INER), as had occurred with the 2009 influenza A H1N1 pandemic, received and diagnosed the first case in our country of what would become the first pandemic of the 21st century¹⁻³. However, the first COVID-19 case heralded the most prolonged and challenging journey in INER's nearly century-long history, leading it to become the epicenter of pandemic care in Mexico.

The profound transformation and hospital reconversion reengineering that INER underwent had actually begun in the early days of that year in response to the

initial alerts of this new disease. The main challenges included a profound hospital reengineering that enabled the adaptation of 200 beds (nearly all of them) for the care of critically ill patients¹. This required a significant expansion of the medical gas infrastructure and the equipment of ventilators, monitors, and infusion pumps, essential for the care of critical patients, but under a severe scenario of global scarcity. This reconversion included the installation of a field hospital that was provided by the Mexican Red Cross but staffed by INER's own personnel. The hiring of temporary staff, such as general practitioners and specialists, nursing personnel, and respiratory therapists, among others, numbered in the thousands who joined the permanent staff and all resident physicians, who remained operational throughout the pandemic. All of this required a major effort in clinical and biosafety training, as well as the organization of an in-house occupational medicine service, which enabled the protection and preservation of workers' health with a zero-casualty outcome. The administrative and managerial efforts to maintain supplies of diagnostic and clinical laboratory tests, medications, and personal protective equipment were a daily challenge, but were always successfully met. Furthermore, INER never ceased to be a leading institution in research, human resource training, and educational strategies during the pandemic; its conferences and audiovisual educational materials were disseminated through its now-famous YouTube channel and were accessed hundreds of thousands of times within and outside our country.

Correspondence:

Juan C. Vázquez-García
E-mail: drjcvazquez@gmail.com

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Undoubtedly, the outstanding work carried out at INER enabled the achievement of the primary goal that was set: to provide free care to the largest possible number of critically ill patients, more than 5,000 individuals, the majority of whom successfully recovered, underwent rehabilitation, and were reintegrated into their families and activities. However, this story has not been fully told. Therefore, as the fifth anniversary of the COVID-19 pandemic approaches the *Neumología y Cirugía de Tórax* (NCT) has undertaken to prepare and publish in its volume 84 (2025) a unique collection of review articles on the subject, in a series we have titled "COVID-19: from INER, five years later." In this issue of NCT, the first five articles of the collection appear¹⁻⁵, and the complete series will be published throughout this year. We aim to provide the most current information in the technical, medical, and scientific domains, as well as all the knowledge and experience gained from the COVID-19 pandemic, from the accounts of its

own protagonists and directly from the principal care center in Mexico. We are confident that this collection will leave a reliable record so that it may be finally reappraised and constitute a unique reference of the lessons learned. This will enable us to contribute to maintaining the clarity, state of alertness, and necessary preparedness to always confront challenges of this magnitude that are characteristic of our time.

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