



What happened to non-SARS-CoV-2 respiratory diseases during the pandemic?

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Early reports of pneumonia of unknown cause associated with SARS and death in Wuhan, China, in December of 2019, did not size up with what was to come. The local outbreak was followed by an exponential spread of the disease. When the WHO declared the condition a pandemic in March of 2020, the disease had already been named (COVID-19) and its etiological agent had already been known (SARS-CoV-2).

Today, approximately 671 million cases and 7 million deaths after its beginning, COVID-19 is still considered as a global health emergency. However, much has changed in understanding the pathophysiological aspects, clinical manifestations, diagnosis, treatment, and prevention of the disease. Immeasurable advances have been achieved in the field of vaccines, in the development of molecular and serological testing technology, and in the evaluation of the treatment of the disease, with a view to mitigating its impact on people's lives. In addition to these aspects, the COVID-19 pandemic has also had an impact on the dynamics of health care, from primary care to the highest levels of complexity. Emergency care, hospitalization, and intensive care beds have been created and modified in view of the new reality.

In this sense, statistics and epidemiological data were disclosed in terms of the number of cases of COVID-19, number of deaths caused by the disease, daily moving averages, among others. In fact, even during the pandemic, other respiratory diseases did not disappear, and the question is inevitable: what happened to these diseases in terms of the dynamics of hospital admissions?

The paper by Resende de Albuquerque et al.⁽¹⁾ intends to answer this question by evaluating the indicators of hospitalization and deaths related to respiratory diseases other than COVID-19 during the first months of the pandemic in Brazil. The authors observed a 42% reduction in hospital admissions for these conditions, and for the two most prevalent chronic respiratory diseases, bronchial asthma and COPD, the reduction in hospitalization rates was approximately 46% and 45%, respectively. The second most important finding of the study⁽¹⁾ refers to the fact that, although the number of hospitalizations decreased, lethality increased by 60% when compared with the same indicator in the period before the pandemic.

These data do not refer to Brazil exclusively. In a Danish study, Bodilsen et al.⁽²⁾ observed that hospital admissions for all groups of non-COVID-19 diseases decreased when compared with the periods prior to the pandemic, and,

additionally, mortality rates were higher for conditions such as chronic respiratory diseases, cancer, pneumonia, and sepsis, especially during lockdown periods. Domingo et al.⁽³⁾ also observed a significant reduction in hospital admissions mainly related to respiratory and cardiovascular diseases in Spain.

A few factors may be responsible for the scenario described by Resende de Albuquerque et al.⁽¹⁾ Initially, we can mention the exacerbations of chronic respiratory diseases, notably COPD and asthma, whose infectious agents (particularly viruses) are the major causes. The implementation of social distancing, use of masks, and hand hygiene with alcohol gel sanitizer incorporated into people's daily lives may have reduced the exposure of these individuals to COVID-19 and other respiratory viruses. Saeed et al.⁽⁴⁾ believe that social distancing was one of the major factors responsible for this phenomenon.

The high demand for care of patients with COVID-19, overloading both emergency services and hospital beds and causing the collapse of health systems in some situations, may have, due to logistical reasons, prioritized the hospitalization of more severe cases, which had an impact on the increase in lethality of respiratory diseases other than COVID-19. Chronic patients themselves might have postponed the visit to an emergency department for fear of contamination with the SARS-CoV-2, configuring a delay in the pharmacological management of these conditions and, consequently, greater severity at admission. Ojetti et al.⁽⁵⁾ highlight this fear as one of the major causes of delay in the search for care and increased mortality.

Finally, but not less important, we draw attention to the fact that health indicators and their reliability are directly related to the quality of records, that is, the accuracy of the information collected. In scenarios where health systems were overloaded, with a smaller number of professionals than what was ideal, associated with the impossibility of laboratory confirmation of all of the cases, COVID-19 overdiagnosis might have occurred and interfered with the quality of the records, leading to underreporting of chronic respiratory diseases.

Time series considering different epidemiological moments and, most importantly, the effect of vaccination for COVID-19 are desirable so that we can improve the understanding of the dynamics of SARS-CoV-2 infections and their repercussions on indicators of chronic respiratory diseases, especially aiming at supporting public health policies.

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