

# Impacts of COVID-19 on the behavior of chronic respiratory diseases in Brazil: What can we conclude?

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The uncontrolled growth of COVID-19 cases in Brazil during the second wave was marked by large numbers of deaths. Existing health services were unable to meet the high demand of patients, despite the many hospitals created in record time. Thus, there was an increase in the number of beds from 46,045 in December 2019 to about 60,000 in April 2020, that is, an increase of 23.5%. However, a Brazilian citizen dependent on a public ICU bed had access to only 22.17% of the nearly 14 thousand created [1,2].

Individuals with asthma and COPD formed the list of the risk group for COVID-19, that is, an increase in the incidence of exacerbations and hospitalizations was expected. However, the data on hospitalizations collected in DATASUS show 1,190,950 hospitalizations for respiratory diseases in 2019, while 757,178 Brazilians were hospitalized in 2020 for the same cause. In other words, there was a 36.5% reduction between January 2019 and December 2020, an astonishing fact, since the peaks of the pandemic did not increase morbidity in this group [1-4].

Similarly, the number of deaths from respiratory diseases reduced by 5.8% in the same period; 98,190 people died in 2019 and 92,529 in 2020. This reduction is surprising, given the similarity of symptoms between Asthma, COPD, bronchitis and emphysema and COVID-19 [1-3].

These data lead to two questions about the similarity of symptoms such as wheezing, shortness of breath and fatigue present in exacerbations of major respiratory diseases, as well as in the disease caused by SARS-Cov-2. Could it be that all chronic exacerbations were identified as such, or did they start to increase the COVID-19 data?

Will the fall of 40% in the number of hospitalizations for asthma (79,947 in 2019; 47,731 in 2020), and 61.4% in hospitalizations for COPD, emphysema and bronchitis<sup>3</sup> (109,995 in 2019; 67,558 in 2020) can it be attributed only to following the rules of social isolation?

Data indicate that it is possible that individuals with chronic respiratory diseases have obeyed the rules of social isolation, wearing

masks, washing hands, thus reducing their exposure to triggering factors for exacerbations, thus reducing the search for health services, reducing hospitalizations and Deaths [5].

However, little is said about the feeling of fear these individuals felt throughout this period. Needing care in an emergency room full of people suspected or diagnosed with COVID-19 caused fear and may have driven chronic respiratory patients away from health services. This fact may additionally explain the reduction in hospitalizations and deaths [4-6].

In conclusion, the change in the behavior of the main respiratory diseases in Brazil with the advent of the COVID-19 pandemic is remarkable. The reduction in hospitalizations and the number of deaths is indisputable. However, even though the literature has described social isolation as one of the main causes for this behavior, others such as the use of inhaled corticosteroids, better adherence to treatment and fear of attending health services need to be studied and considered as influencing factors in behavior of these diseases.

## References

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