



Chronic respiratory diseases are predictors of severe outcome in COVID-19 hospitalised patients: a nationwide study

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There was a higher risk of developing severe COVID-19 and a higher mortality rate among patients with chronic respiratory diseases. This study suggests that these patients should have priority access to SARS-CoV-2 vaccination. <https://bit.ly/3bcp2HC>

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Abstract

Background Influenza epidemics were initially considered to be a suitable model for the COVID-19 epidemic, but there is a lack of data concerning patients with chronic respiratory diseases (CRDs), who were supposed to be at risk of severe forms of COVID-19.

Methods This nationwide retrospective cohort study describes patients with prior lung disease hospitalised for COVID-19 (March–April 2020) or influenza (2018–2019 influenza outbreak). We compared the resulting pulmonary complications, need for intensive care and in-hospital mortality depending on respiratory history and virus.

Results In the 89530 COVID-19 cases, 16.03% had at least one CRD, which was significantly less frequently than in the 45819 seasonal influenza patients. Patients suffering from chronic respiratory failure, chronic obstructive pulmonary disease, asthma, cystic fibrosis and pulmonary hypertension were under-represented, contrary to those with lung cancer, sleep apnoea, emphysema and interstitial lung diseases. COVID-19 patients with CRDs developed significantly more ventilator-associated pneumonia and pulmonary embolism than influenza patients. They needed intensive care significantly more often and had a higher mortality rate (except for asthma) when compared with patients with COVID-19 but without CRDs or patients with influenza.

Conclusions Patients with prior respiratory diseases were globally less likely to be hospitalised for COVID-19 than for influenza, but were at higher risk of developing severe COVID-19 and had a higher mortality rate compared with influenza patients and patients without a history of respiratory illness.

