COVID-19 pneumothorax in the UK: a prospective observational study using the ISARIC WHO clinical characterisation protocol

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Shareable abstract (@ERSpublications)
Population level data from 131 679 patients show that COVID-19 pneumothorax occurs in 0.97% of admitted patients, especially males and smokers, and is associated with increased mortality
https://bit.ly/3oB27ez

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To the Editor:

Pneumothorax is an important complication of coronavirus disease 2019 (COVID-19) [1, 2]. Based on a series of 60 individuals, we previously estimated that 0.91% of people admitted to hospital with COVID-19 develop pneumothorax [1]. Males accounted for three quarters of those affected, and patients requiring noninvasive or invasive ventilatory support appeared at elevated risk. In a separate series of ventilated patients with COVID-19, barotrauma, defined as pneumothorax or pneumomediastinum, was found to be an independent risk for death [2]. During the pandemic, treatment strategies have evolved, influenced by large randomised controlled trials and clinical experience. Following the landmark results from the RECOVERY trial [3], dexamethasone became standard of care for patients requiring supplemental oxygen. Following the first UK wave between March and June 2020, use of noninvasive respiratory support became more common [4, 5]. Such changes could plausibly alter the incidence of pneumothorax caused by COVID-19. Indeed, a recent small study reported an increase in pneumothoraces in the second wave of COVID-19 in Italy, leading to speculation that dexamethasone use might have been causal [6].