



Inhaled corticosteroids downregulate SARS-CoV-2-related genes in COPD: results from a randomised controlled trial

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In a RCT of 63 patients with COPD, 12 weeks of ICS/LABA therapy downregulated bronchial epithelial expression of the SARS-CoV-2-related genes *ACE2* and *ADAM17* compared to LABA alone. This may have implications for COVID-19 susceptibility/severity in COPD. <https://bit.ly/3vZnBVO>

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To the Editor:

Observational studies show that COPD is associated with increased coronavirus disease 2019 (COVID-19) severity and mortality [1]. Inhaled corticosteroids (ICS), which are commonly used to treat COPD, have been associated with increased risk of bacterial pneumonia in COPD and impaired immune response to viruses. Whether this class of medication affects the airway expression of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) receptors and cofactors (changes which may modify COVID-19 susceptibility and outcomes) is currently unclear. Therefore, we examined the effects of ICS treatment on SARS-CoV-2-related gene expression in lower airway bronchial epithelial cells (BECs) in a randomised controlled trial of COPD patients.

