

# Asthma and COVID-19

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## 1 Viruses commonly trigger asthma exacerbations

There is some evidence to date that those with asthma are overrepresented among the adult patients who have been admitted to hospital with coronavirus disease 2019 (COVID-19).<sup>1,2</sup> This overrepresentation may occur because severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) triggers asthma exacerbations, as other viruses do, which is why asthma is listed as a risk factor for COVID-19 morbidity.<sup>1</sup>

## 2 Asthma exacerbation and COVID-19 are difficult to differentiate clinically

The most common presenting symptoms of COVID-19 — dry cough and shortness of breath — are also common with acute exacerbation of asthma.<sup>3</sup> Fever is more commonly associated with COVID-19 but could be present with any infection-triggered exacerbation of asthma. Screening protocols for COVID-19 should be applied to anyone having worsening respiratory symptoms, including those with asthma, in view of the varied clinical presentations of COVID-19. Appropriate personal protective equipment should be used by those initiating screening.<sup>3</sup>

## 3 Good asthma control can help prevent asthma exacerbations during the COVID-19 pandemic

Current recommendations are to remain on the same asthma maintenance medications during the pandemic.<sup>1,3</sup> Other precautions include reviewing proper inhaler technique, avoiding known asthma triggers (such as aeroallergens), physical distancing and regular hand hygiene.<sup>1,3</sup> For patients with asthma who are taking biologic medications, current recommendations support remaining on them during this time.<sup>3</sup>

## 4 Nebulization should be avoided if possible

Nebulization is an aerosol-generating medical procedure that can increase the risk of aerosolization of SARS-CoV-2 and infection transmission.<sup>1,3</sup> A metered-dose inhaler with a valved holding chamber or a dry-powder inhaler (turbuhaler or diskus) is strongly preferred over nebulizers, particularly in health care settings.<sup>1</sup>

## 5 Oral steroids should still be used to treat asthma exacerbations

Oral steroids are not recommended to treat lung disease associated with COVID-19 (owing to possible increased viral replication).<sup>4</sup> However, in patients with asthma, current recommendations are to use oral steroids for moderate-to-severe asthma exacerbations that respond poorly to bronchodilators because use of these steroids hastens symptom resolution and decreases the risk of admission to hospital.<sup>1,3,5</sup> Oral steroids often start to work within 4 hours of administration.<sup>5</sup>

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