

IPCRG practice driven answers on COVID-19 and respiratory questions



Should we give COVID-positive patients without asthma ICS as a preventer of respiratory distress syndrome?

What the research says

There is limited data on the effectiveness of early administration of inhaled corticosteroids (ICS) for the treatment of COVID-19 illness in patients without asthma or any other condition that clearly needs it. One single Phase 2 trial (STOIC trial) with 167 patients found that early administration of inhaled budesonide reduced the likelihood of needing urgent medical care and reduced time to recovery after early COVID-19 (Ramakrishnan et al 2021). However, meta-analysis of observational data has failed to show a statistically significant benefit for ICS in non-asthmatic patients when compared with standard care in terms of mortality prevention (Kow and Hasan 2021). Moreover, ICS therapy for patients without asthma may lead to unnecessary side effects, overcoming any potential benefit.

There are currently no clinical guidelines recommending the use of ICS for non-

asthmatic patients with early, non-severe COVID-19 illness. However, there is emerging evidence that patients at high risk of being admitted to hospital with COVID-19 may benefit from ICS therapy. More results are required before a recommendation can be made. Supporting this evidence are interim results from the PRINCIPLE trial that found that inhaled budesonide reduced the time to recovery by a median of 3 days among people with COVID-19 and reduced risk factors for adverse outcomes including older age (≥ 65 years) or ≥ 50 years with comorbidities. (PRINCIPLE Collaborative Group 2021). A number of other clinical trials for budesonide and ciclesonide (Deokar et al 2021) are currently ongoing and recommendations will be updated depending on the outcomes of these studies.

What this means for your clinical practice

- ICS therapy is not currently recommended (study results are awaited) for patients without asthma with early COVID-19, as intended to prevent respiratory distress syndrome.

Useful links and supporting references

Deokar K, et al. A review of ciclesonide in COVID-19. Still a long way to go. *Adv Respir Med* 2021;89:79–81.

Kow CS, Hasan SS. Preadmission use of inhaled corticosteroids and risk of fatal or severe COVID-19: a meta-analysis. *J Asthma* 2021;Online ahead of print.

PRINCIPLE Collaborative Group. Inhaled budesonide for COVID-19 in people at higher risk of adverse outcomes in the community: interim analyses from the PRINCIPLE trial. Available at:

<https://www.medrxiv.org/content/10.1101/2021.04.10.21254672v1> . Accessed June 2021.

Ramakrishnan S, et al. Inhaled budesonide in the treatment of early COVID-19 (STOIC): a phase 2 open-label, randomised controlled trial. *Lancet Respir Med* 2021;S2213-2600.

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