COVID-19 and asthma

Are people with asthma at increased risk of COVID-19, or severe COVID-19?

- People with asthma do not appear to be at increased risk of acquiring COVID-19, and systematic reviews have not shown an increased risk of severe COVID-19 in people with well-controlled, mild-to-moderate asthma.

Are people with asthma at increased risk of COVID-19-related death?

- Overall, people with well-controlled asthma are not at increased risk of COVID-19-related death (Williamson, Nature 2020; Liu et al JACI IP 2021).
- However, the risk of COVID-19 death was increased in people who had recently needed OCS for their asthma (Williamson, Nature 2020) and in hospitalized patients with severe asthma (Bloom, Lancet RM 2021).

What are the implications for asthma management?

- It is important to continue good asthma management (as described in the GINA report), with strategies to maintain good symptom control, reduce the risk of severe exacerbations and minimise the need for OCS.

Have there been more asthma exacerbations during the pandemic?

- No. In 2020, many countries saw a reduction in asthma exacerbations and influenza-related illness. The reasons are not precisely known, but may be due to handwashing, masks and social/physical distancing that reduced the incidence of other respiratory infections, including influenza.
Advise patients to continue taking their prescribed asthma medications, particularly inhaled corticosteroids

- For patients with severe asthma, continue biologic therapy or oral corticosteroids if prescribed

Are inhaled corticosteroids (ICS) protective in COVID-19?

- In one study of hospitalized patients aged ≥50 years with COVID-19, ICS use in those with asthma was associated with lower mortality than in patients without an underlying respiratory condition (Bloom, Lancet RM 2021)

Make sure that all patients have a written asthma action plan, advising them to:

- Increase controller and reliever medication when asthma worsens (see GINA report Box 4-2)
- Take a short course of OCS when appropriate for severe asthma exacerbations

Avoid nebulizers where possible, to reduce the risk of spreading virus

- Pressurized metered dose inhaler via a spacer is preferred except for life-threatening exacerbations
- Add a mouthpiece or mask to the spacer if required
Avoid spirometry in patients with confirmed or suspected COVID-19, or if community transmission of COVID-19 is occurring in your region
- Follow aerosol, droplet and contact precautions if spirometry is needed
- Consider asking patients to monitor PEF at home, if information about lung function is needed

Follow strict infection control procedures if aerosol-generating procedures are needed
- Nebulization, oxygen therapy (including nasal prongs), sputum induction, manual ventilation, non-invasive ventilation and intubation

Follow local health advice about hygiene strategies and use of personal protective equipment, as new information becomes available in your country or region
Have COVID-19 vaccines been studied in people with asthma?
- Yes. Many types of COVID-19 vaccines have been studied and are being used worldwide
- New evidence, including in people with asthma, will emerge over time

Are COVID-19 vaccines safe in people with allergies?
- In general, allergic reactions to vaccines are rare
- The Pfizer/BioNTek and Moderna COVID-19 vaccines should be administered in a healthcare setting where anaphylaxis can be treated if it occurs
- These vaccines should not be administered to patients with a history of severe allergic reaction to polyethylene glycol, or any other vaccine ingredient. More details from ACIP are [here](#)
- As always, patients should speak to their healthcare provider if they have concerns

Usual vaccine precautions apply, for example:
- Ask if the patient has a history of allergy to any components of the vaccine
- If the patient has a fever or another infection, delay vaccination until they are well

At present, based on the risks and benefits, and with the above caution, GINA recommends COVID-19 vaccination for people with asthma

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COVID-19 vaccines and asthma

- COVID-19 vaccination and biologic therapy
  - We suggest that biologic therapy and COVID-19 vaccine should not be given on the same day, so that adverse effects of either can be more easily distinguished.

- After COVID-19 vaccination
  - Current advice from the United States Centers for Disease Control and Prevention (CDC) is that people who have been fully vaccinated against COVID-19 should continue to wear a mask in crowded settings. Further details are here.

- Influenza vaccination
  - Remind people with asthma to have an annual influenza vaccination.
  - A gap of 14 days between COVID-19 vaccination and influenza vaccination is recommended by CDC.

- GINA will update advice about COVID-19 and asthma as new data become available.

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