GINA guidance about COVID-19 and asthma

Updated 30 April 2022

GINA Global Strategy for Asthma Management and Prevention

www.ginasthma.org

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, studies to date indicate that people with well-controlled asthma are not at increased risk of COVID-19-related death *(Williamson, Nature 2020; Liu et al JACI IP 2021)* and in one meta-analysis, mortality appeared to be lower than in people without asthma *(Hou, 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; Shi, Lancet RM 2022)* 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 2020–21, many countries saw a *decrease* in asthma exacerbations and influenza-related illness
  - The reasons are not precisely known, but may be due to public health measures such as handwashing, masks and social/physical distancing that reduced the incidence of other respiratory infections, including influenza *(Davies, Thorax 2021)*

COVID-19 and asthma medications

- Advise patients to continue taking their prescribed asthma medications, particularly inhaled corticosteroids
  - For patients with severe asthma, continue biologic therapy or OCS 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
- When COVID-19 is confirmed or suspected, or local risk is moderate or high, avoid nebulizers where possible, to reduce the risk of spreading virus to health professionals and other patients/family
  - For bronchodilator administration, pressurized metered dose inhaler via a spacer is preferred except for acute severe asthma
  - Add a mouthpiece or mask to the spacer if required

COVID-19 and asthma – infection control

- In healthcare facilities, follow local COVID-19 testing recommendations and infection control procedures if spirometry or peak flow measurement is needed *(e.g. Virant, JACI in Practice 2022)*
  - Use of an in-line filter minimizes the risk of transmission *during* spirometry, but many patients cough *after* performing spirometry; coach the patient to stay on the mouthpiece if they feel the need to cough
  - If spirometry is not available due to local infection control restrictions, and information about lung function is needed, consider asking patients to monitor lung function at home
- Follow local infection control procedures if other 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

COVID-19 vaccines and asthma

- 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
- Are COVID-19 vaccines safe in people with allergies?
  - In general, allergic reactions to vaccines are rare
  - Patients with a history of severe allergic reaction to a COVID-19 vaccine ingredient (e.g. polyethylene glycol for Pfizer/BioNTech or Moderna, or polysorbate 80 for AstraZeneca or J&J/Janssen), should receive a different COVID-19 vaccine. More details from ACIP are here
  - People with allergies to food, insect venom or other medications can safely receive COVID-19 vaccines
  - As always, patients should speak to their healthcare provider if they have concerns
  - Follow local advice about monitoring patients after COVID-19 vaccination
- 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
- Based on the risks and benefits, and with the above precautions, GINA recommends people with asthma should be up to date with COVID-19 vaccination (including booster doses, if available)

COVID-19 vaccines and asthma

- COVID-19 vaccination and biologic therapy
  - We suggest that the first dose of asthma 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
- Influenza vaccination
  - Remind people with asthma to have an annual influenza vaccination
  - CDC now recommends that influenza vaccine and COVID-19 vaccine can be given on the same day
- After COVID-19 vaccination
  - Current advice from the United States Centers for Disease Control and Prevention (CDC) is that where there is substantial transmission of COVID-19, people will be better protected, even if they are fully vaccinated, if they wear a mask in indoor public settings; this will also reduce risk to others. Further details are here
- GINA will update advice about COVID-19 and asthma as new data become available