

Severe or Uncontrolled Asthma

- Severe asthma: asthma that remains “uncontrolled” despite optimized treatment with high-dose ICS-LABA, or that requires high-dose ICS-LABA to prevent it from becoming “uncontrolled”¹
- Patients do not achieve control over symptoms such as wheezing, chest tightness, shortness of breath, and cough¹
- Diagnosis of severe asthma should be considered when it remains uncontrolled despite¹:
 1. Optimized treatment (inhaler technique, adherence, etc.)
 2. Treatment of comorbidities and modifiable risk factors
 3. Treatment with non-biologic add-on therapy
 4. Non-pharmacologic interventions e.g. smoking cessation
 5. Treatment with high-dose ICS-LABA

Assessment of patients with poor symptom control/exacerbation despite treatment¹

Ensure proper inhaler technique and adherence



- ⇒ Watch the patient using his/her inhaler and evaluate using an inhaler-specific checklist^{2,3}
 - ✓ Correct patient errors
- ⇒ Discuss the importance of adherence
 - ✓ Address barriers to use



Around **30%** of patients have poor inhaler technique*⁴



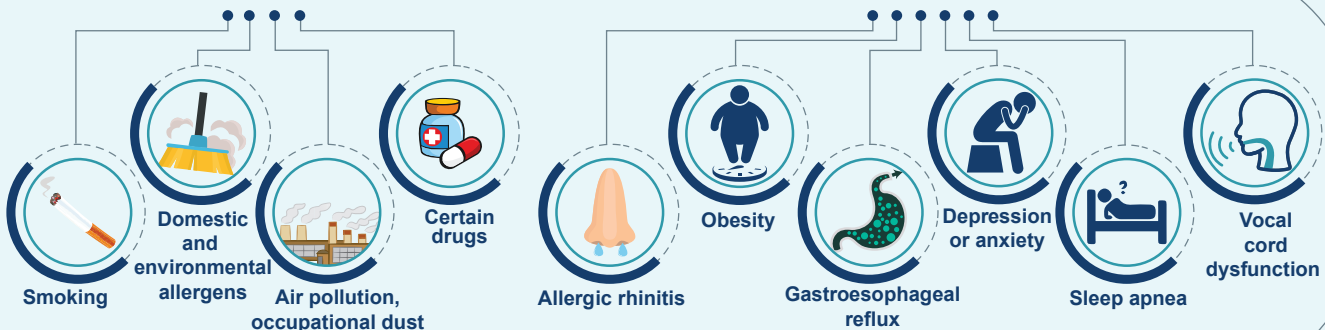
Confirm asthma diagnosis¹



- ⇒ Confirm using spirometry
 - ⇒ Documented excessive variability in lung function and documented expiratory airflow limitation at least once during diagnostic process
- ⇒ If lung function is normal during symptoms, step down ICS and repeat assessment after 2–3 weeks

Risk factors¹

Assess and manage comorbidities¹



Consider stepping up treatment¹



- ⇒ If inhaler technique and adherence are satisfactory, and modifiable risk factors such as smoking have been addressed
- ⇒ In the absence of response, reduce treatment to the previous level, and consider alternative treatment options
- ⇒ Involve patients in the decision-making for improved adherence and asthma outcomes



3–6 months of high-dose ICS-LABA ± add-on treatment

Still uncontrolled?

Refer to a specialist



*The systematic review included patients with asthma and COPD.

ICS, inhaled corticosteroids; LABA, long-acting β_2 -agonist; LAMA, long-acting muscarinic antagonist.

1. Global Initiative for Asthma (GINA). Global Strategy for Asthma Management and Prevention, 2021. Available at: <https://ginasthma.org/>. Accessed May 21, 2021; 2. Inhaler technique. Device-specific checklists. National Asthma Council Australia. Available at: <https://www.nationalasthma.org.au/living-with-asthma/resources/health-professionals/charts/inhaler-technique-checklists>. Accessed May 21, 2021; 3. NHS Liverpool Clinical Commissioning Group-inhaler technique checklist. Available at: http://psnc.org.uk/liverpool-lpc/wp-content/uploads/sites/117/2016/06/Inhaler_Technique_Checklist.pdf. Accessed May 21, 2021; 4. Sanchis J. et al. *Chest*. 2016;150:394-406.