



Michigan Quality Improvement Consortium Guideline

General Principles for the Diagnosis and Management of Asthma

The following guideline recommends general principles and key clinical activities for the diagnosis and management of asthma.

Eligible Population	Key Components	Recommendation and Level of Evidence
Children and adults with the following: >Wheezing >History of cough (worse particularly at night), recurrent wheezing, recurrent difficulty in breathing, recurrent chest tightness. Symptoms occur or worsen in response to triggers-such as exercise, viral infection, inhalant allergens, irritants, changes in weather, strong emotional Expression, stress, menstrual cycles.	Diagnosis and management goals	Follow the Global Initiative for Asthma (GINA) 2025 diagnostic approach and confirm variable expiratory airflow limitation whenever feasible before initiating long-term controller therapy; if treatment must begin urgently, document objective confirmation at the earliest opportunity. Detailed medical history and physical exam to determine precipitating factors and that symptoms of recurrent episodes of airflow obstruction are present and reversed by bronchodilator. Use spirometry (FEV₁, FVC, FEV₁/FVC, FEF 25-75) in all patients age ≥ 5 (<u>and all those capable of performing spirometry</u>) to determine that airway obstruction is at least partially reversible. Consider alternative causes of airway obstruction. Goals of therapy: <u>Reduce</u> impairment: chronic symptoms, need for rescue therapy, <u>Oral Corticosteroids</u> (OCS) and <u>to maintain near-normal lung function and activity level.</u> <u>Reducing risk</u>: exacerbations, need for emergency care or hospitalization, loss of lung function or reduced lung growth in children, or adverse effects of therapy.
	Initiating Treatment and Stepping Up or Down as Needed	Assess asthma control and likelihood of adherence to daily controller therapy. Assess device technique, <u>compliance</u> and concerns at every visit. Follow the GINA 2025 treatment tracks. For adults and adolescents, Track 1 with low-dose ICS-formoterol as the preferred reliever is recommended when available; avoid SABA-only treatment. Provide a written asthma action plan and review it at each visit. Assure follow-up visits every 1-3 months after <u>initiating</u> treatment and every 3-12 months thereafter. After an exacerbation, a review visit within 1 week should be scheduled. [D] Review response and adjust medications as needed: - Obtain spirometry (FEV₁, FVC, FEV₁/FVC, FEF 25-75) to confirm control after symptoms have stabilized; and at least every 1-2 years, more frequently for <u>uncontrolled asthma</u>. - Assess risk & control: track exacerbations requiring (OCS), ED visits, hospitalizations and seasonality of symptoms, <u>Asthma Control Test</u> (ACT) or <u>Asthma Impairment and Risk Questionnaire</u> (AIRQ) - Stepping medications down or up (Link to Stepping Down and UP) - Stepping down: consider when symptoms <u>are</u> well controlled and lung function <u>stabilizes</u> for 3 or more months [D]. Choose a low-risk season. - Stepping up: assess patient's <u>health literacy and knowledge of medication device</u> technique, <u>compliance</u>, environmental factors, tobacco exposure, <u>and exposure to respiratory infections</u>.
	Education	Develop written <u>asthma action plan collaborating</u> [B] Update annually, more frequently if needed. Provide self-management education. [A] Teach and reinforce: monitoring to assess control and signs of exacerbations (either symptoms or peak flow monitoring) [B]; <u>utilizing a</u> written asthma action plan; taking medication correctly (inhaler technique and use of devices); recognizing, reporting and avoiding environmental and occupational factors that <u>may trigger or exacerbate</u> asthma (outdoor activity, <u>gastroesophageal reflux</u>; <i>see Eligible Population column</i>). <u>Individualize asthma education to patient's level of literacy</u>; <u>consider</u> patients' cultural beliefs and as it relates to their management. [C]
	Control environmental factors and comorbid conditions	Recommend measures to <u>reduce or eliminate triggers</u>. [A] Consider allergen immunotherapy for patients with persistent asthma and <u>where</u> there is clear evidence of a relationship between symptoms and exposure to an allergen (dust, mold, pollen, pets.) [B] Treat relevant conditions (e.g., allergic bronchopulmonary aspergillosis [A] gastroesophageal reflux/laryngotracheal reflux [B] obesity [B] obstructive sleep apnea [D], rhinitis and sinusitis [B], chronic stress or depression [D], vocal cord dysfunction, [D].) Vaccines: Inactivated influenza vaccine for all patients over 6 months of age [A] unless contraindicated. COVID-19 vaccine; <u>Avoid</u> intranasal influenza vaccine. Give age-appropriate <u>pneumococcal vaccine</u>.
Symptoms occur or worsen at night.	Medications	Follow stepwise medication management per GINA 2025, using an ICS-containing regimen for all patients with asthma and reserving SABA-only regimens only when an ICS-containing reliever/controller approach is not feasible. Adults and adolescents should be considered for anti-inflammatory reliever therapy with ICS-formoterol, including MART/SMART when persistent symptoms warrant maintenance-and-reliever treatment. Re-evaluate in 2–6 weeks for symptom control, exacerbation risk, adherence, inhaler technique, side effects, comorbidities, and patient goals. Modify treatment using the assess–adjust–review cycle. Recent evidence supports ICS-containing reliever therapy over SABA-only rescue therapy in adults and adolescents. Consider step down if well-controlled for 3 months.

Referral	Consider referral to an allergist or pulmonologist if: 1) asthma remains difficult to control or diagnosis is uncertain; 2) immunotherapy, biologics, or phenotype-directed therapy may be indicated; 3) additional testing such as FeNO, eosinophils, IgE/allergy evaluation, or other pulmonary testing is needed; 4) the patient has required 2 or more oral corticosteroid bursts in the past year; 5) there has been an asthma-related hospitalization or life-threatening exacerbation; or 6) Step 4–5 therapy is required or maintenance oral corticosteroids are being considered. [D]
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Levels of Evidence for the most significant recommendations: A = randomized controlled trials; B = controlled trials, no randomization; C = observational studies; D = opinion of expert panel

This guideline lists core management steps and is informed by the National Asthma Education and Prevention Program Expert Panel Report 3; the 2020 Focused Updates to the Asthma Management Guidelines; the Global Initiative for Asthma (GINA) Global Strategy for Asthma Management and Prevention, 2025; NHLBI asthma action plan and quick-reference resources; CDC/ACIP vaccine recommendations, including pneumococcal vaccination guidance; Krings and Beasley, "The Role of ICS-Containing Rescue Therapy Versus SABA Alone in Asthma Management Today," JACI: In Practice, 2024; Levy et al., "A simple and effective evidence-based approach to asthma management: ICS-formoterol reliever therapy," British Journal of General Practice, 2024; Couillard et al., "Choosing the Right Biologic for the Right Patient With Severe Asthma," CHEST, 2025; Gyawali et al., "Biologics in severe asthma: a state-of-the-art review," European Respiratory Review, 2025; and Gaberino et al., "Biologics in the treatment of severe asthma in children and adults—updates 2024–2025," Journal of Allergy and Clinical Immunology, 2026.