

Management of Persistent Asthma

The following guideline applies to patients with persistent asthma and recommends routine use of peak flow measurements, anti-inflammatory medications, a written action plan and education to guide patients in self-management. For more complete management information, reference the 1997 National Asthma Education and Prevention Program (NAEPP) Expert Panel Report 2: *Guidelines for the Diagnosis and Management of Asthma*, along with the 2002 Update on Selected Topics (Both at www.nhlbi.nih.gov).

Eligible Population	Key Components	Recommendation and Level of Evidence	Frequency
Adults and children older than 5 years of age ¹ with persistent asthma	Use of peak flow meters	<ul style="list-style-type: none"> Prescribe peak flow meter [B] 	At least once
	Regular use of controller medications	<ul style="list-style-type: none"> Prescribe daily use of inhaled corticosteroids [A] Add long-acting inhaled beta₂agonists^{2,3} if persistent symptoms despite maximum inhaled steroid dose. [A] Avoid the regular scheduled use of short-acting beta₂agonists for long term control of asthma. Use spacer for all inhaled medications. 	Re-assess at least every six months
	Management of acute exacerbations	<ul style="list-style-type: none"> Prescribe short-acting inhaled beta₂agonists⁴ [B] Prescribe oral steroids for acute exacerbations that fail to respond adequately⁴ [B] 	During acute episode
	Medical follow-up	<ul style="list-style-type: none"> Recommend and schedule, if possible, follow-up outpatient visit at discharge from hospital or emergency department [D] 	Visit within 7 days of discharge
	Periodic Assessment – Education, monitoring and management	<ul style="list-style-type: none"> Provide written action plan for self-management (e.g., www.mqic.org/pdf/s_action.pdf) Recommend influenza immunization and ensure age appropriate immunization status (e.g., pneumococcal vaccine) Educate patient/family regarding: <ul style="list-style-type: none"> Use of peak flow meter, inhaler/spacer and other medications Recognition/treatment of symptoms and when to seek medical attention Identification and avoidance of specific triggers Smoking cessation/secondhand smoke avoidance [C] 	Re-assess at least every six months
Referral	<ul style="list-style-type: none"> Consultation with an asthma specialist is recommended when patient is not responding optimally to asthma therapy, has signs, symptoms or conditions that make it difficult to obtain asthma control, or following a life-threatening asthma exacerbation 		

¹ For patients 5 years of age and younger, refer to the specific pediatric recommendations in the 2002 update of the National Asthma Education and Prevention Program (NAEPP) Expert Panel Report 2: *Guidelines for the Diagnosis and Management of Asthma* (www.nhlbi.nih.gov).

² Inhaled corticosteroids with long-acting beta₂agonists are preferred therapy for moderate persistent asthma. Alternative treatments include inhaled corticosteroids with either leukotriene modifier or theophylline.

³ Alternative therapies for mild persistent asthma include leukotriene modifier OR sustained release theophylline to serum concentration of 5-15 mcg/mL.

⁴ Prescribe these medications for the patient to have at home to use in the event of an acute exacerbation.

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. Individual patient considerations and advances in medical science may supersede or modify these recommendations.