

**Health Plan of Michigan Clinical Practice Guideline
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.

Eligible Population	Key Components	Recommendation and Level of Evidence	Frequency
Adults and children > 5 years of age with persistent asthma – (symptoms >2/week but <1x/day and/or > 2 nights/month with FEV ₁ or PEF ≥ 80% predicted and PEF variability of 20% - 30%)	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 intermediate or long acting inhaled beta₂agonist (LABA)^{1,2} if symptoms persist despite maximum inhaled steroid dose. [A] LABA should not be used as the first medication to treat asthma or as mono-therapy [D]. (LABA therapy has been associated with increased risk of severe asthma exacerbations and asthma-related deaths) Avoid the regular scheduled use of short-acting beta₂agonists for long term control of asthma Use spacer for all inhaled medications [A] 	Reassess at least every 6 months, or at each periodic visit.
	Management of acute exacerbations	<ul style="list-style-type: none"> Prescribe short-acting, inhaled beta₂agonist³ [B] Prescribe oral steroids for acute exacerbations that fail to respond adequately³ [A] Routine use of antibiotics for exacerbations is not recommended. 	During an acute episode
	Medical follow-up after discharge	<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 3-5 days of discharge
	Periodic Assessment-Education, monitoring, and management	<ul style="list-style-type: none"> Patients receiving LABA should have close surveillance to assess benefit and safety of medication. Provide written action plan for self-management (e.g. www.mqic.org/pdf/a_action.pdf) Assess adherence to written action plan, psychosocial status, asthma control, triggers, medication use and side effects. 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/pacer, and other medications (i.e., inhaled corticosteroids) [D] -Recognition/treatment of symptoms and when to seek medical attention -Identification and avoidance of specific triggers -Smoking cessation/secondhand smoke avoidance [C] 	At each periodic visit.
	Referral	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.	

¹Inhaled corticosteroids with long acting beta2agonists are preferred therapy for moderate persistent asthma.. Alternative treatments include inhaled corticosteroids with either leukotriene modifier or theophylline.

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

⁴Prescribe 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 supercede or modify these recommendations.

This guideline lists core management steps. It is based on several sources, including: the Diagnosis and Outpatient Management of Asthma Guideline, Institute of Clinical Systems Improvement, 2005 (www.icsi.org); and the 2002 National Asthma Education and Prevention Program Expert Panel Report, Guidelines for the Diagnosis and Management of Asthma, update on Selected Topics (www.nhlbi.nih.gov). Individual patient considerations and advances in medical science may supersede or modify these recommendations.

Approved by MQIC Medical Directors August 2006

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