Michigan Quality Improvement Consortium 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.

<table>
<thead>
<tr>
<th>Eligible Population</th>
<th>Key Components</th>
<th>Recommendation and Level of Evidence</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults and children older than 5 years of age with persistent asthma</td>
<td>Use of peak flow meters</td>
<td>• Prescribe peak flow meter [B]</td>
<td>At least once</td>
</tr>
</tbody>
</table>
|                     | Regular use of controller medications | • Prescribe daily use of inhaled corticosteroids. [A]  
• Add long acting inhaled beta<sub>2</sub>agonist<sup>2,3</sup> if persistent symptoms despite maximum inhaled steroid dose. [A]  
• Avoid the regular scheduled use of short-acting beta<sub>2</sub>agonists for long term control of asthma. | Reassess at least annually |
|                     | Management of acute exacerbations | • Prescribe short-acting, inhaled beta<sub>2</sub>agonist<sup>4</sup>[B]  
• Prescribe oral steroids for acute exacerbations that fail to respond adequately<sup>4</sup>[B] | During acute episode |
|                     | Medical follow-up | • 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 | • Provide written action plan for self-management  
• Recommend influenza immunization and ensure age appropriate immunization status (e.g., pneumococcal vaccine)  
• Educate patient/family regarding:  
  - Use of peak flow meter  
  - Use of Inhaler/Spacer  
  - Use of medication  
  - Recognition/treatment of symptoms and when to seek medical attention  
  - Identification and avoidance of specific triggers  
  - Smoking cessation/secondhand smoke avoidance [C] | Reassess at least annually |

<sup>1</sup> 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.

<sup>2</sup> Inhaled corticosteroids with beta<sub>2</sub>agonists (preferred therapy). Alternative treatment: inhaled corticosteroids with either leukotriene modifier or theophylline.

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

<sup>4</sup> 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. It is based on 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). Individual patient considerations and advances in medical science may supersede or modify these recommendations.