### Classifying Asthma Severity and Initiating Treatment

#### Components of Severity

<table>
<thead>
<tr>
<th>Classification of Asthma Severity (≥12 Years of Age)</th>
<th>Intermittent</th>
<th>Persistent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermittent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symptoms</td>
<td>≤2 days/week</td>
<td>&gt;2 days/week but not daily</td>
</tr>
<tr>
<td>Nighttime awakenings</td>
<td>≤2×/month</td>
<td>3–4×/month</td>
</tr>
<tr>
<td>Short-acting β₂-agonist use for symptom control (not prevention of EIB)</td>
<td>≤2 days/week</td>
<td>&gt;2 days/week but not daily and not more than 1× on any day</td>
</tr>
<tr>
<td>Interference with normal activity</td>
<td>None</td>
<td>Minor limitation</td>
</tr>
<tr>
<td>Lung function</td>
<td>Normal FEV₁ between exacerbations</td>
<td>FEV₁ &gt;80% predicted</td>
</tr>
<tr>
<td></td>
<td>FEV₁/FVC normal</td>
<td>FEV₁/FVC reduced 5%</td>
</tr>
<tr>
<td></td>
<td>FEV₁ &gt;60% but &lt;80% predicted</td>
<td>FEV₁/FVC reduced &gt;5%</td>
</tr>
<tr>
<td></td>
<td>FEV₁ &lt;60% predicted</td>
<td></td>
</tr>
</tbody>
</table>

#### Recommended Step for Initiating Treatment

- **Step 1:**
  - Preferred: SABA PRN
  - Alternative: Cromolyn, LTRA, Nedocromil, or Theophylline

- **Step 2:**
  - Preferred: Low-dose ICS + LABA
  - Alternative: Medium-dose ICS + either LTRA, Theophylline, or Zileuton

- **Step 3:**
  - Preferred: Medium-dose ICS + LABA
  - Alternative: Low-dose ICS + either LTRA, Theophylline, or Zileuton

- **Step 4:**
  - Preferred: High-dose ICS + LABA
  - Alternative: Consider Omalizumab for patients who have allergies

- **Step 5:**
  - Preferred: High-dose ICS + LABA and Omalizumab for patients who have allergies

- **Step 6:**
  - Preferred: High-dose ICS + LABA + oral corticosteroid AND Consider Omalizumab for patients who have allergies

#### Stepwise Approach for Managing Asthma

- **Step 1:**
  - Preferred: SABA PRN
  - Alternative: Cromolyn, LTRA, Nedocromil, or Theophylline

- **Step 2:**
  - Preferred: Low-dose ICS + LABA
  - Alternative: Medium-dose ICS + either LTRA, Theophylline, or Zileuton

- **Step 3:**
  - Preferred: Medium-dose ICS + LABA
  - Alternative: Low-dose ICS + either LTRA, Theophylline, or Zileuton

- **Step 4:**
  - Preferred: High-dose ICS + LABA
  - Alternative: Consider Omalizumab for patients who have allergies

- **Step 5:**
  - Preferred: High-dose ICS + LABA and Consider Omalizumab for patients who have allergies

- **Step 6:**
  - Preferred: High-dose ICS + LABA + oral corticosteroid AND Consider Omalizumab for patients who have allergies

**NOTES**

- SABA as needed for symptoms. Intensity of treatment depends on severity of symptoms: up to 3 treatments at 20-min intervals as needed. Short course of oral systemic corticosteroids may be needed.
- Use of SABA >2 days a week for symptom relief (not prevention of EIB) generally indicates inadequate control and the need to step up treatment.

**Quick-Relief Medication for All Patients**

- Use of SABA >2 days a week for symptom relief (not prevention of EIB) generally indicates inadequate control and the need to step up treatment.

**Key:**

- EIB = exercise-induced bronchospasm
- FEV₁ = forced expiratory volume in 1 second
- FVC = forced vital capacity
- ICS = inhaled corticosteroid
- LABA = inhaled long-acting β₂-agonist
- LTRA = leukotriene receptor antagonist
- SABA = inhaled short-acting β₂-agonist

*Preferred therapy is based on Expert Panel Report 2 from 1997.*

(continued)
## ASSESSING ASTHMA CONTROL AND ADJUSTING THERAPY

### Components of Control

<table>
<thead>
<tr>
<th>Impairment</th>
<th>Well Controlled</th>
<th>Not Well Controlled</th>
<th>Very Poorly Controlled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms</td>
<td>≤2 days/week</td>
<td>&gt;2 days/week</td>
<td>Throughout the day</td>
</tr>
<tr>
<td>Nighttime awakenings</td>
<td>≤2×/month</td>
<td>1–3×/week</td>
<td>≥4×/week</td>
</tr>
<tr>
<td>Interference with normal activity</td>
<td>None</td>
<td>Some limitation</td>
<td>Extremely limited</td>
</tr>
<tr>
<td>Short-acting $\beta_2$-agonist use for symptom control (not prevention of EIB)</td>
<td>≤2 days/week</td>
<td>&gt;2 days/week</td>
<td>Several times per day</td>
</tr>
<tr>
<td>FEV$_1$ or peak flow</td>
<td>&gt;80% predicted/ personal best</td>
<td>60%–80% predicted/ personal best</td>
<td>&lt;60% predicted/ personal best</td>
</tr>
<tr>
<td>Validated questionnaires*</td>
<td>ATAQ</td>
<td>ACQ</td>
<td>ACT</td>
</tr>
<tr>
<td>ATAQ</td>
<td>≤0.75†</td>
<td>≥1–2</td>
<td>3–4</td>
</tr>
<tr>
<td>ACQ</td>
<td>≥20</td>
<td>1–2</td>
<td>N/A</td>
</tr>
<tr>
<td>ACT</td>
<td></td>
<td>16–19</td>
<td>≤15</td>
</tr>
</tbody>
</table>

### Exacerbations requiring oral systemic corticosteroids

<table>
<thead>
<tr>
<th>Risk</th>
<th>0–1/year</th>
<th>≥2/year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Consider severity and interval since last exacerbation</td>
<td>Evaluation requires long-term follow-up care</td>
</tr>
</tbody>
</table>

- Progressive loss of lung function
- Treatment-related adverse effects

### Recommended Action for Treatment

- **Well Controlled**
  - Maintain current step
  - Regular follow-ups every 1–6 months to maintain control
  - Consider step down if well controlled for at least 3 months

- **Not Well Controlled**
  - Step up 1 step and
  - Reevaluate in 2–6 weeks
  - For side effects, consider alternative treatment options

- **Very Poorly Controlled**
  - Consider short course of oral systemic corticosteroids
  - Step up 1 to 2 steps and
  - Reevaluate in 2 weeks
  - For side effects, consider alternative treatment options

### Notes

- Key: ACQ = Asthma Control Questionnaire©; ACT = Asthma Control Test™; ATAQ = Asthma Therapy Assessment Questionnaire©; EIB = exercise-induced bronchospasm; FEV$_1$ = forced expiratory volume in 1 second.
- Questionnaires do not assess lung function or the risk domain. ACQ values of 0.76–1.4 are indeterminate regarding well-controlled asthma.

### References