ASTHMA MANAGEMENT—YOUTHS ≥12 YEARS OF AGE & ADULTS (part 1 of 2)

Classifying Asthma Severity and Initiating Treatment in Youths ≥12 Years of Age and Adults

Assessing severity and initiating treatment for patients who are not currently taking long-term control medications

Components of Severity		Classification of Asthma Severity (≥12 Years of Age)			
			Persistent		
		Intermittent	Mild	Moderate	Severe
Impairment **Normal FEV_1/FVC:** **8–19 yr 85%** **20–39 yr 80%** **40–59 yr 75%** **60–80 yr 70%**	Symptoms	≤2 days/week	>2 days/week but not daily	Daily	Throughout the day
	Nighttime awakenings	≤2×/month	3–4×/month	>1×/week but not nightly	Often 7×/week
	Short-acting β_2-agonist use for symptom control (not prevention of EIB)	≤2 days/week	>2 days/week but not daily and not more than 1× on any day	Daily	Several times per day
	Interference with normal activity	None	Minor limitation	Some limitation	Extremely limited
	Lung function	• Normal FEV_1 between exacerbations • FEV_1 >80% predicted • FEV_1/FVC normal	• FEV_1 >80% predicted • FEV_1/FVC normal	• FEV_1 >60% but <80% predicted • FEV_1/FVC reduced 5%	• FEV_1 <60% predicted • FEV_1/FVC reduced >5%
Risk	**Exacerbations requiring oral systemic corticosteroids**	**0–1/year**	**≥2/year** →		
		← **Consider severity and interval since last exacerbation** →			
		Frequency and severity may fluctuate over time for patients in any severity category			
		Relative annual risk of exacerbations may be related to FEV_1			
Recommended Step for Initiating Treatment		**Step 1**	**Step 2**	**Step 3** and consider short course of oral systemic corticosteroids	**Step 4 or 5** and consider short course of oral systemic corticosteroids
		In 2 to 6 weeks, evaluate level of asthma control that is achieved and adjust therapy accordingly.			

EIB = exercise-induced bronchospasm; FEV_1 = forced expiratory volume in 1 second; FVC = forced vital capacity.

Adapted from National Asthma Education and Prevention Program. *Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma 2007*. U.S. Department of Health and Human Services. Available at: http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.pdf. Accessed on: November 26, 2012.

Stepwise Approach for Managing Asthma in Youths ≥12 Years of Age and Adults

Intermittent Asthma

Persistent Asthma: Daily Medication
Consult with asthma specialist if Step 4 care or higher is required.
Consider consultation at Step 3.

Step 1
Preferred:
SABA PRN

Step 2
Preferred:
Low-dose ICS
Alternative:
Cromolyn, LTRA, Nedocromil, or Theophylline

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

Step 4
Preferred:
Medium-dose ICS + LABA
Alternative:
Medium-dose ICS + either LTRA, Theophylline, or Zileuton

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

Step up if needed
(first, check adherence, environmental control, and comorbid conditions)

Assess control

Step down if possible
(and asthma is well controlled at least 3 months)

Each Step: Patient education, environmental control, and management of comorbidities
Steps 2–4: Consider subcutaneous allergen immunotherapy for patients who have allergic asthma.

Quick-Relief Medication for All Patients

- SABA as needed for symptoms. Intensity of treatment depends on severity of symptoms: up to 3 treatments at 20-minute 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

EIB = exercise-induced bronchospasm; ICS = inhaled corticosteroid; LABA = inhaled long-acting β_2-agonist; LTRA = leukotriene receptor antagonist; SABA = inhaled short-acting β_2-agonist.

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

Adapted from National Asthma Education and Prevention Program. *Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma 2007*. U.S. Department of Health and Human Services. Available at: http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.pdf. Accessed on: November 26, 2012.

Assessing Asthma Control and Adjusting Therapy in Youths ≥12 Years of Age and Adults

Components of Control		Classification of Asthma Control (≥12 Years of Age)		
		Well Controlled	**Not Well Controlled**	**Very Poorly Controlled**
Impairment	Symptoms	≤2 days/week	>2 days/week	Throughout the day
	Nighttime awakenings	≤2×/month	1–3×/week	≥4×/week
	Interference with normal activity	None	Some limitation	Extremely limited
	Short-acting β_2-agonist use for symptom control (not prevention of EIB)	≤2 days/week	>2 days/week	Several times per day
	FEV_1 or peak flow	>80% predicted/ personal best	60%–80% predicted/ personal best	<60% predicted/ personal best
	Validated questionnaires* ATAQ ACQ ACT	 0 ≤0.75† ≥20	 1–2 ≥1.5 16–19	 3–4 N/A ≤15
Risk	**Exacerbations requiring oral systemic corticosteroids**	**0–1/year**	**≥2/year**	
		Consider severity and interval since last exacerbation		
	Progressive loss of lung function	Evaluation requires long-term follow-up care		
	Treatment-related adverse effects	Medication side effects can vary in intensity from none to very troublesome and worrisome. The level of intensity does not correlate to specific levels of control but should be considered in the overall assessment of risk.		
Recommended Action for Treatment		• Maintain current step • Regular follow-ups every 1 to 6 months to maintain control • Consider step down if well controlled for at least 3 months	• Step up 1 step and • Reevaluate in 2 to 6 weeks • For side effects, consider alternative treatment options	• 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

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.

Adapted from National Asthma Education and Prevention Program. *Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma 2007*. U.S. Department of Health and Human Services. Available at: http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.pdf. Accessed on: November 26, 2012. (Rev. 12/2012)

This Asthma Management Chart is also available at www.eMPR.com.