KCQIC Guidelines for Management of Asthma

Population	Physician / Patient	Recommendation	Frequency

Adults and children over the age of 5	Confirm diagnosis / exclude treatable causes	▪ Confirm DX -- Obstruction of airways (wheeze, cough)
		  ▪ Episodic and recurring
		  ▪ Variable and at least partially reversible
		▪ Consider spirometry – more often with children or when clarifying DX (may also consider methacholine challenge)
		▪ Consider other disorders (especially if refractory to TX): GE reflux, recurrent sinusitis, CHF, COPD, foreign body aspiration, tumor
			At initial visit / diagnosis, unexplained exacerbations

	Initial physician steps	▪ Start severity appropriate medication (especially inhaled steroids, as needed) ▪ Provide initial education on disease and self management ▪ Create and reinforce Action Plan ▪ Provide Influenza and Pneumococcal vaccinations as needed	Early visits
	Ongoing physician adjustments	▪ Mild Persistent - Daily Anti-inflammatory: either inhaled steroid (low dose) **or** cromolyn **or** nedocromil ▪ Moderate Persistent - Daily inhaled steroids (medium dose) **or** daily inhaled steroids (low to medium) and long-acting bronchodilator or leukotriene modifiers ▪ Severe Persistent - Daily inhaled steroids (high dose) **and** long-acting bronchodilator **and** leukotriene modifiers **and** if needed, oral corticosteroids [1] ▪ Refer to specialist as appropriate [2]	Ongoing and worsening symptoms
	Physician management of acute exerbations	▪ Prescribe short acting inhaled beta2-agonists ▪ Prescribe oral steroid for acute exacerbations that fail to respond adequately	During acute episode
	Patient education	▪ Refer to nurse educator (patient not understanding disease or no trained office staff to teach) ▪ Provide and reinforce written Action Plan ▪ Appropriate use of peak flow meters, inhalers, and medication ▪ Avoid triggers of exacerbation ▪ Emphasize patient role in health status maintenance e.g. smoking cessation and exercise pre-treatment [3]	Initial and ongoing
	Patient self monitoring	▪ Recognition and treatment of symptoms and when to seek medical attention ▪ Peak Flow meter ▪ Prevent triggers of exacerbation	Initial and with increasing symptoms

1. Make repeated attempts to reduce systemic steroids and maintain control with high-dose inhaled
2. Specialist referral: Difficulty maintaining control, frequent office visits, loss time form work or school (>4 days/yr), life-threatening asthma attack or exacerbation that requires ER or inpatient care
3. Patients with exercise-induced bronchospasm should take two to four puffs of an inhaled beta2-agonist 5 to 60 minutes before exercise

Source: Guidelines for the Diagnosis and Management of Asthma. Expert Panel Report 2: Clinical Practice Guidelines. NIH Publication No. 97-4051, July 1997. National Institutes of Health, National Heart, Lung and Blood Institute, 1997; http://www.nhlbi.nih.gov/health/prof/lung/index.htm

More detailed background and references available upon request

This guideline represents steps to be taken for the usual patient with persistent asthma. Individual patient considerations and advances in medical science may supercede or modify these recommendations.

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Classification of Asthma Severity*

Clinical Features before treatment**

	Symptoms	Night-time Symptoms	Lung Function
Mild Intermittent	▪ Symptoms ≤ 2 times a week ▪ Asymptomatic and normal PEF between exacerbations ▪ Exacerbations brief (from a few hours to a few days); intensity may vary	≤ 2 times a month	▪ FEV_1 or PEF ≥ 80% predicted ▪ PEF variability <20%
Mild Persistent	▪ Symptoms ≥ 2 times a week but < 1 time a day ▪ Exacerbations may affect activity	> 2 times a month	▪ FEV_1 or PEF ≥ 80% predicted ▪ PEF variability 20-30%
Moderate Persistent	▪ Daily symptoms ▪ Daily use of inhaled short-acting beta2-agonist ▪ Exacerbations affect activity ▪ Exacerbations ≥ 2 times a week; may last days	>1 time a week	▪ FEV_1 or PEF ≥ 60% ≤ 80% predicted ▪ PEF variability > 30%
Severe Persistent	▪ Continual symptoms ▪ Limited physical activity ▪ Frequent exacerbations	Frequent	▪ FEV_1 or PEF ≤ 60% predicted ▪ PEF variability > 30%

* Patients at any level of severity can have mild, moderate, or severe exacerbations. Some patients with intermittent asthma experience severe and life-threatening exacerbations separated by long periods of normal lung function and no symptoms.

** The presence of one of the features of severity is sufficient to place a patient in that category. An individual should be assigned to the most severe grade in which any feature occurs. The characteristics noted in this figure are general and may overlap because asthma is highly variable. An Individual's classification may change over time.

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