

## Summary of Recommended Key Clinical Activities for the Diagnosis and Management of Asthma

Clinical Issue	Key Clinical Activities		Action Steps	
Diagnosis		·		
Establish Asthma Diagnosis		1.	Use medical history and physical examination to determine that symptoms of recurrent episodes of airflow obstruction are present:	
			<ul> <li>History of cough, recurrent wheezing, recurrent difficulty breathing, recurrent chest tightness</li> </ul>	
			<ul> <li>Symptoms occur or worsen at night or with exercise, viral infection, exposure to allergens and irritants, changes in weather, hard laughing or crying, stress, or other factors</li> </ul>	
		2.	Use spirometry in all patients >5 years of age to determine that airway obstruction is at least partially reversible.	
		3.	Consider alternative causes of airway obstruction.	
Managing Asthma Long Term	Goal of asthma therapy is asthma control:			
	<ul> <li>Reduce impairment (prevent chronic symptoms, require infrequent use of short_acting beta2_agonist (SABA), maintain (near) normal lung function and normal activity levels).</li> </ul>			
		<ul> <li>Reduce risk (prevent exacerbations, minimize need for emergency care or hospitalization, prevent loss of lu function, or for children, prevent reduced lung growth, and have minimal adverse effects of therapy).</li> </ul>		
Four Components of Care				
Assessment and Monitoring	Assess asthma severity to initiate therapy.		e severity classification chart, assessing both domains of impairment and , to determine initial treatment.	
	Assess asthma control to monitor and adjust therapy.		sess at each visit: asthma control, proper medication technique, written hma plan, patient adherences and patient concerns.	
		dete	e asthma control chart, assessing both domains of impairment and risk, to ermine if therapy should be maintained or adjusted (step up if necessary, o down if possible).	
		diffe they spir	e multiple measures of impairment and risk: different measures assess erent manifestations of asthma. They may not correlate with each other and y may respond differently to therapy. Obtain lung function measures by rometry at least every 1-2 years, or more frequently for not-well-controlled hma.	

This is a guideline only and is not meant to substitute for clinical judgment.

References: National Asthma Education and Prevention Program. Expert Panel Report 3. Retrieved from: http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.pdf 2007 and http://www.nhlbi.nih.gov/files/docs/guidelines/asthma\_qrg.pdf on 06/01/2015.



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	Schedule follow-up care.	Asthma is highly variable over time, and periodic monitoring is essential. In general, consider scheduling patients at 2- to 6-week intervals while gaining control; at 1-6 month intervals, depending on step of care required or duration of control, to monitor if sufficient control is maintained; and at 3-month intervals if a step down in therapy is anticipated.
Education	Provide self-management education.	<ul> <li>Teach and reinforce at each visit:</li> <li>Self-monitoring to assess level of asthma control and signs of worsening asthma (either symptom or peak flow monitoring shows similar benefits for most patients). Peak flow monitoring may be particularly helpful for patients who have difficulty perceiving symptoms, a history of severe exacerbations, or moderate or severe asthma.</li> <li>Using a written asthma action plan (review differences between long-term control and quick-relief medication).</li> <li>Taking medication correctly (inhaler technique and use of devices, understanding the difference between long-term control and quick relief medications).</li> <li>Long-term control medications (such as inhaled corticosteroids, which reduce inflammation) prevent symptoms. They should be taken daily and will not provide quick relief.</li> <li>Quick relief medications (such as short-acting beta2-agonists or SABAs) relax air muscles to provide fast relief of symptoms. They will not provide long term asthma control. If used &gt;2 days/week (except as needed for exercise induced asthma), the patients may need to start or increase long-term medications.</li> </ul>
	Develop a written asthma <i>action plan</i> in partnership with patient.	Avoiding environmental factors that worsen asthma.
	Integrate education into all points of care where health professionals interact with patients.	Develop a written asthma action plan: <i>Tailor education to literacy level of patient. Appreciate the potential role of a patient's cultural beliefs and practices in asthma management.</i>
		<ul> <li>Agree on <i>treatment goals</i> and address <i>patient concerns</i>.</li> <li>Provide instructions for (1) daily management (long-term control medication, if appropriate, and environmental control measures) and (2) managing worsening asthma (how to adjust medication, and knowing when to seek medical care).</li> </ul>

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		• Involve all members of the healthcare team in providing/reinforcing education, including physicians, nurses, pharmacists, respiratory therapists, and asthma educators.
		• Encourage education at all points of care: clinics (offering separate self- management education programs as well as incorporating education into every patient visit), emergency departments and hospitals, pharmacies, schools and other community settings, and patients' homes. Use a variety of educational strategies and methods.
Control Environmental Factors and Comorbid Conditions	Recommend measures to <u>control</u> <u>exposures to allergens and pollutants</u> <u>or irritants</u> that make asthma worse.	Determine exposures, history of symptoms in presence of exposures, and sensitivities. (In patients who have persistent asthma, use skin or in vitro testing to assess sensitivity to perennial indoor allergens.)
		Advise patients on ways to reduce exposure to those allergens, pollutants, or irritants to which the patient is sensitive. Multifaceted approaches are beneficial; single steps alone are generally ineffective. Advise all patients and pregnant women should avoid exposure to tobacco smoke.
		Consider allergen immunotherapy, by specifically trained personnel, for patients who have persistent asthma and when there is clear evidence of a relationship between symptoms and exposure to an allergen to which the patient is sensitive.
	Treat <i>comorbid conditions</i> .	Consider especially: allergic bronchopulmonary aspergillosis, gastroesophageal reflux, obesity, obstructive sleep apnea, rhinitis and sinusitis, and stress or depression. Recognition and treatment of these conditions may improve asthma control.
		Consider inactivated <i>influenza vaccine for all patients over 6 months of age</i> .
Medications	Select medication and delivery devices to meet patient's needs and circumstances.	Use stepwise approach (See http://www.nhlbi.nih.gov/files/docs/guidelines/asthma_qrg.pdf, page 7) to identify appropriate treatment options.
		<u>Inhaled corticosteroids (ICSs) are the most effective long-term control therapy</u> . When choosing among treatment options, consider domain of relevance to the patient (impairment, risk, or both), patient's history of response to the medication, and patient's willingness and ability to use the medication.
		Review medications, technique, and adherence at each follow-up visit.

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