Key Points for Asthma Guideline Implementation

GOALS OF THERAPY

Reduce Impairment

- Prevent chronic and troublesome symptoms
- Keep short acting beta agonist medicine for relief of asthma symptoms infrequent (2 days a week)
- Maintain (near) normal pulmonary function
- Maintain normal activity levels
- Meet patients' and families' expectations of and satisfaction with asthma care

Reduce Risk

- Prevent recurrent exacerbations of asthma and minimize the need for ED visits or hospitalizations
- Provide optimal pharmacotherapy with minimal or no adverse effects of therapy

ASSESSMENT

- Classify asthma severity and/or level of asthma control
- Identify precipitating factors (asthma triggers)
- Identify comorbid medical conditions that may impede asthma management
- Assess the patient's knowledge and skills for self-management

VISIT FREQUENCY

Asthma not well controlled: Visits at 2- to 6-week intervals are appropriate

Asthma is well controlled: Three- to 6-month intervals are recommended to monitor whether asthma control is maintained and if medication needs adjustment up or down.

PATIENT EDUCATION

Incorporate the following into every clinical encounter:

Knowledge

- Basic facts about asthma
- Role of medications

Skills

- Taking medications correctly
- Identifying and avoiding asthma triggers
- Self-monitoring level of asthma control
- Recognizing early signs and symptoms of worsening asthma
- Using a written asthma action plan to know when and how to:
  - Take daily actions to control asthma
  - Adjust medication in response to signs of worsening asthma
- Seeking medical care as appropriate

OBTAIN SUBSPECIALIST CONSULTATION IF:

(see Table 1)

- 0-4 yrs and step 3 care or higher is required (may consider consultation at step 2)
- 5 yrs and step 4 care or higher is required (may consider consultation at step 3)
- Difficulty in achieving or maintaining asthma control

Information adapted from Texas Children's Health Plan's "Key Points for Asthma Guideline Implementation"

MEDICAL HOME CHAPTER CHAMPIONS PROGRAM ON ASTHMA

Table 1: Stepwise approach to managing asthma

Before step up: Review adherence, inhaler technique, environmental control and comorbid conditions.

Steps	Preferred treatment
Step 1	SABA prn
Step 2	Low dose ICS
Step 3	0-4 yrs: Medium dose ICS + subspecialist referral ≥5 yrs: Low dose ICS + LABA or medium dose ICS
Step 4	Medium dose ICS + LABA or montelukast + subspecialist referral
Step 5	Subspecialist referral mandated
Step 6	Subspecialist referral mandated

Notes

The stepwise approach is meant to assist, not replace clinical decision making. If clear benefit is not observed within 4-6 weeks and technique + adherence is not satisfactory, consider adjusting therapy and/or alternative diagnoses.

Table 2: Classifying asthma therapy and initiating therapy

Components of severity		Intermittent	Persistent		
			Mild	Moderate	Severe
Impairment	Symptoms	≤2 days/week	>2 days/week	Daily	Throughout the day
	Nighttime awakenings	0 (≤4 yrs) ≤2x/month (≥5 yrs)	1-2x/month (≤4 yrs) 3-4x/month (≥5 yrs)	3-4/xmonth (≤4 yrs) >1x/week (≥5 yrs)	>1x/week (≤4 yrs) Often 7x/week (≥5 yrs)
	SABA use for symptoms	≤2 days/week	>2 days/week	Daily	Several times per day
	Limitation of normal activity	None	Minor	Some	Extreme
	Lung function **	FEV1>80% FEV1/FVC>85% (5-11 yrs) FEV1/FVC normal (≥12 yrs)	FEV1>80% FEV1/FVC>85% (5-11 yrs) FEV1/FVC normal (≥12 yrs)	FEV1>60% FEV1/FVC>75% (5-11 yrs) FEV1/FVC reduced by 5% (≥12 yrs)	FEV1<60% FEV1/FVC<75% (5-11 yrs) FEV1/FVC reduced >5% (≥12 yrs)
Risk	Exacerbations requiring oral corticosteroids	0-1/year	≥2 in 6 months (0-4 yrs) *** ≥2/year (≥5 yrs)		
Recommended step for initiating therapy ****		Step 1	Step 2	Step 3	Step 3 (≤4 yrs) Step 3 or 4 (5-11 yrs) Step 4 or 5 (≥12 yrs)

Notes

Some criteria vary by age

SABA=Short acting beta agonist

LABA=Long acting beta agonist

ICS=Inhaled corticosteroid

OCS=oral corticosteroid

Table 3: Assessing asthma control and adjusting therapy

Components of control		Well controlled	Not well controlled	Very poorly controlled
Impairment	Symptoms	≤2 days/week	>2 days/week or (if ≤11 yrs) multiple times ≤2 days/week	Throughout the day
	Nighttime awakenings	≤1x/month (if ≤12 yrs) ≤2x/month (if >12 yrs)	≥2x/month (if ≤12 yrs) 1-3x/week (if >12 yrs)	≥2x/week (if ≤12 yrs) ≥4x/week (if >12 yrs)
	Interference with normal activity	None	Some limitation	Extremely limited
	SABA use for symptoms	≤2 days/week	>2 days/week	Several times per day
	Lung function	FEV1>80% FEV1/FVC>80%	FEV1 60-80% FEV1/FVC 75-80%	FEV1<60% FEV1/FVC<75%
Risk	Exacerbations requiring OCS	0-1x/year	2-3x/year (if 0-4 yrs) ≥2x/year (if ≥5 yrs)	≥3x/year (if 0-4 yrs) ≥2x/year (if ≥5 yrs)
	Reduction in lung growth	Requires long-term followup		
	Treatment related to adverse effects	Medication side effects do not correlate with specific levels of control, but should be considered in overall assessment of risk.		
Recommended action for treatment *		Consider step down if well controlled for ≥3 months.	Step up 1 step. Re-evaluate in 2-6 weeks.	Consider short course oral corticosteroid. Step up 1-2 steps. Re-evaluate in 2 weeks.

* Recommended guidelines

** Note that some individuals with smaller lungs in relation to their height (such as a thin individual with narrow A-P diameter to their chest) may normally have FEV1<80% and/or FEV1/FVC<85%. Lung function measures should be correlated with clinical assessment of asthma severity.

*** For 0-4 years, ≥4 wheezing episodes per year and lasting >1 day AND risk factors for persistent asthma also meets risk criteria for persistent asthma.

**** For initial therapy of moderate or severe persistent asthma that is poorly controlled consider a short course of oral corticosteroids.