Physician
Asthma
Care
Education

Training Manual & Speaker's Guide

Based on National Asthma Education and Prevention Program (NAEPP) Guidelines including the NAEPP's Guidelines Implementation Panel (GIP) Priority Messages. Funded in part by the National Asthma Control Initiative of the National Heart, Lung, and Blood Institute (NHLBI), National Institutes of Health (NIH).

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Introduction

Rationale and Aims of the Program

Although our understanding of the pathogenesis and treatment of asthma has increased greatly in recent years, morbidity and mortality from asthma are on the rise. Although better treatments for asthma are available, too often physicians are not following recommended guidelines, and patients are not following physicians' orders.

Some professionals have been slow to adopt proven asthma therapies for a variety of reasons. Cost, perceived inconvenience, resistance from patients, and the belief that patient education will take too much time all play a role in keeping these therapies out of clinicians' treatment plans.

However, many patients whose clinicians are recommending the latest, best therapy for asthma still suffer from poorly managed asthma. Research shows that many clinicians do not use the most effective strategies for communicating with and providing education for patients. Patients are not satisfied with clinicians' communication or with the quality of education they provide about disease and therapy.

This program aims to address both these problems. It provides education for clinicians in how to use the best current therapy for asthma. It provides information on how to better communicate with patients and teach them, so that they will be able to take advantage of the clinicians' recommendations. We believe that better care will result from building a partnership between patients and their health professionals.

Bases of the Program:

APPLICATION OF SELF-REGULATION THEORY

Social cognitive theory provides the theoretical foundation for the intervention. One principle of this theory, self-regulation, has been studied extensively as a way to improve learning. Research has been shown that learning is enhanced by self-regulation, that is, the learner's efforts to observe, evaluate, and react to his or her own responses to a problem.

When learners self-observe, develop strategies to reach goals, and evaluate the success of these strategies, they gain an increased sense of self-confidence (self-efficacy), greater intrinsic motivation, and higher academic achievement. The seminar uses a self-regulation format to present new material to be learned and behaviors to be performed, an approach that appeals to clinicians.

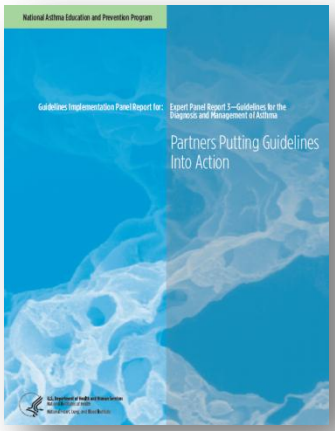
Clinicians make decisions and take action based on previous experiences and the consequences they anticipate. When desired consequences are achieved, behavior is reinforced. This increases the clinician's motivation to use the behavior again. The motivation is experienced as an increased sense of self-efficacy and confidence that the behavior can be used again successfully to achieve similar or better results.

The seminar enables clinicians to use self-regulation to improve their treatment decisions and delivery of self-management education for the family. It provides clinicians with education strategies and tools that can easily be introduced into their ongoing practice, requiring minimal increases in time but having maximum impact on the patient's ability to retain and use treatment advice and education. Clinicians will also be taught to self-regulate their ability to use these tools successfully with patients.

Priority Messages from the EPR-3 Guidelines Implementation Panel (GIP)

The NHLBI's National Asthma Education and Prevention Program's (NAEPP) most recent Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma (EPR-3) emphasize the importance of asthma control and provide new guidance for selecting treatment.

Its companion Guidelines Implementation Panel (GIP) Report: Partners Putting Guidelines into Action prioritizes six clinical practice recommendations from the EPR-3 that are vital for asthma control and reinforce the essential aspects of effective asthma management.



http://www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.htm

The six **Priority Messages from the EPR-3 Guidelines Implementation Panel (GIP)** are interspersed throughout the program. When a message is an emphasis of a section, it is highlighted and indicated as a GIP message. You should take a moment at each of these slides to reinforce the importance of following these recommendations for effective asthma control. The messages are also available as patient education materials for you to include in the participant binders. In addition, the original presentation of GIP messages from the Panel report is included in the Appendix.

Six Priority GIP Messages

1. **Use Inhaled Corticosteroids**
   Inhaled corticosteroids are the most effective medications for long-term management of persistent asthma and should be utilized by patients and clinicians as is recommended in the guidelines for control of asthma.
2. **Use Written Asthma Action Plans**
   All people with asthma should receive a written asthma action plan to guide their self-management efforts.
3. **Assess Asthma Severity**
   All patients should have an initial severity assessment based on measures of current impairment and future risk in order to determine type and level of initial therapy needed.
4. **Assess and Monitor Asthma Control**
   At planned follow-up visits, asthma patients should review their level of asthma control with their health care provider based on multiple measures of current impairment and future risk in order to guide clinician decisions to either maintain or adjust therapy.
5. **Schedule Follow-up Visits**
   Patients who have asthma should be scheduled for planned follow-up visits at periodic intervals in order to assess their asthma control and modify treatment if needed.
6. **Control Environmental Exposures**
   Clinicians should review each patient's exposure to allergens and irritants and provide a multipronged strategy to reduce exposure to those allergens and irritants to which a patient is sensitive and exposed, that is, that make a patient's asthma worse.

Tips for Running the Seminar

The following are general tips for running the seminar. In addition, each segment is preceded by a "tips for instructors" section, which provides more specific suggestions.

Scheduling

The program consists of two, 2 1/2 hour sessions held about a week apart. It is most effective whenever possible to hold the second session about a week after the first in order to give participants an opportunity to try out the concepts learned in the first session. Their experiences can then be discussed at the second session.

Instructors

The seminar works best when there are three instructors: (1) a primary care provider, (2) an asthma specialist, and (3) a behavioral scientist/health educator who is also skilled in aspects of cultural competence. The primary care provider should be a respected and well-known physician in the community. He or she introduces each of the segments, leads the case discussions in session 2, segment 2, and helps other primary care providers think through how to implement new material in everyday practice. The asthma specialist, (that is, a pulmonologist or allergist) presents clinical aspects of asthma in session 1, segment 1 and adds an additional perspective to the case discussions in session 2, segment 2. Finally, the behavioral scientist/health educator leads session 1, segment 2 on patient communication and session 2, segment 1 on patient education.

Group Size

In terms of group size, eight to ten clinicians is ideal. A smaller group tends to limit the discussion, and in a larger group, some members may not get a chance to participate.

Equipment

The sessions should be held in comfortable surroundings where audiovisual equipment is available. You will need a computer and projector to present the slide shows and videos. A microphone can be helpful, but we recommend that the speakers do not stand behind a podium.

Binder

You will also want to prepare a binder for each participant. There is a sample binder at the end of the manual, which can be copied for each participant.

Refreshments

Serving refreshments before the session can be a way to "break the ice." Soft drinks and snacks should be available throughout the session, but we found that a formal break in the middle of the session was not a good idea as it broke up the flow of the presentations.

Practice

A practice run of the sessions is enormously helpful in ironing out problems before the start of the formal sessions. Previewing the video is a requirement for success. You can obtain the PACE program video via the PACE website or by contacting the National Heart, Lung, and Blood Institute (NHBLI).

Incentives

It is important that you provide incentives for participation in the program. Stressing the cost-effectiveness of the program's recommendations may appeal to some. Better asthma care in the office can reduce referrals to specialists and emergency department visits. This is a special plus for those practicing in managed care. In addition, when patients become better self-managers, the clinician saves time. Educational materials for clinicians to give to patients are a major incentive for participation. CME credit can be arranged for participants. The fact that a rigorous evaluation of the program showed positive changes in physicians' behavior, patient health status, and health care utilization may also be motivating to some clinicians.

Program Overview: Session 1

Segment 1:
CLINICAL ASPECTS OF ASTHMA AND THE LONG-TERM MANAGEMENT

This segment is a slide presentation. On the left-hand side of each page of this manual in the section titled "Slides, Scripts and Instructions" you will find hard copies of each slide. To the right of each slide are suggested "additional comments." The instructor should read each slide aloud. The spoken points can be used as a guide to elaborate on the ideas presented on the slides. The emphasis is the clinical treatment of asthma.

SLIDE PRESENTATION OBJECTIVES

- Provide an overview of the clinical aspects of asthma, including the goals and prescribing patterns considered the standard of practice in asthma care today.
- Introduce methods clinicians can use to teach patients to respond to changing conditions by adjusting medications at home.
- Emphasize the importance of formulating a long-term plan for managing asthma in partnership with the family.

DISCUSSION OBJECTIVES

Using the guidelines recommendations in the presentation as a framework, participants will discuss how to treat children with different patterns of symptoms.

Segment 2:
COMMUNICATION STRATEGIES

This segment consists of a slide presentation, a video demonstration, and discussion. Directions for the slide presentation are presented as described above. For the video demonstration and discussion, directions for the instructor are listed on the left side of the page, and a suggested script for each segment is listed to the right. The script is meant to be used as a general guide: the instructor can modify the script to fit his or her own presentation style. *Note that Segment 2 concludes with summary slides following the video presentation*.

SLIDE PRESENTATION OBJECTIVES

- Explain why good communication is essential.
- Provide a theoretical framework which, when used to guide communication and behavior, can increase the likelihood that patients will follow clinician recommendations.

VIDEO OBJECTIVES

- Demonstrates communication techniques, which have been shown to enhance patient satisfaction with medical care and increase adherence to the treatment plan.

DISCUSSION OBJECTIVES

- Participants will review the techniques depicted in the video and discuss ways the techniques can be tailored to fit each clinician's own style, practice, and patient population.

Segment 3:
PATIENT HEALTH EDUCATION

This segment is organized as a video demonstration and discussion of patient health education messages. Again, directions for the instructor are listed.

VIDEO OBJECTIVES

- Demonstrate the basic messages patients and families must receive in order to effectively manage asthma on a day-to-day basis.

DISCUSSION OBJECTIVES

- Participants will discuss how best to provide the educational messages depicted in the video.

ASSIGNMENTS FOR NEXT SESSION

- Participants are asked during the following week to try one or more communication techniques they have not yet tried to see how they work with their patients.
- They are asked to observe and rate their own communication behavior using protocols provided.
- Participants are asked to bring in an asthma case with a patient from their practice for discussion during the next session.

Program Overview: Session 2

Segment 4:

REVIEW FROM LAST WEEK

The primary care physician instructor will review key points discussed during the last week's session.

REVIEW OF COMMUNICATION SKILLS & SELF-RATING SCALE

The behavioral scientist instructor will review communication strategies discussed last week and the corresponding handout in the participant binder. A discussion on the use of the self-rating scale will also be facilitated.

Segment 5:

CLINICAL CASE DISCUSSION

This segment consists of a discussion of cases of two types. First, participants will provide cases from their clinical experience. Second, the asthma specialist will present two cases provided in the manual. A guide for facilitating discussion is provided.

DISCUSSION OBJECTIVES

- Participants will discuss asthma cases from their own practices. Communication and education will be addressed regarding how they influence medical and pharmacological factors.

- The asthma specialist instructor will wish to review carefully in advance the two program cases provided in Session 2, Segment 2 and prepare clinical advice and therapeutic issues to discuss with participants.

Segment 6:

DOCUMENTATION, CODING, AND REIMBURSEMENT

This segment presents a mini-lecture and video on documentation, coding, and reimbursement strategies for asthma counseling and education.

SLIDE PRESENTATION OBJECTIVES

- Provide an overview of documentation, coding, and payment strategies for asthma counseling and education.

- Highlight important aspects of documentation and coding based on level of visit.
- Help clinicians feel more comfortable documenting and coding for their asthma education and counseling.
- Provide guidelines for documentation and coding for asthma education and counseling.

VIDEO OBJECTIVES

- Demonstrate approaches posited at enhancing documentation and coding for asthma education and counseling.

DISCUSSION OBJECTIVES

- Participants will review techniques depicted in the video and consider how these might be incorporated into practice.

Slides, Scripts, and Instructions

Session 1

TIPS FOR INSTRUCTORS

THE MAIN POINTS TO CONVEY IN THIS SEGMENT ARE:

1. Assessment of severity and control forms the basis of the treatment plan.

2. Appropriate asthma management requires the proper use of long-term control *and* quick-relief medications.

3. Because asthma symptoms are variable, families need to recognize symptoms and adjust medications at home according to the clinician's plan.

REMEMBER

The particulars of any plan are flexible and may change as newer drugs are introduced – the important point is to give a plan to the patient for adjusting medicine as needed.

Allow time for discussion, but remind participants that they will have a chance to discuss specific cases during the next session.

Session 1, Segment 1
Introduction

SUGGESTED SCRIPT -- *PRIMARY CARE PROVIDER/ASTHMA SPECIALIST*
We are delighted that you have agreed to take part in this seminar. I am _____.

The fact that you are here today shows that you recognize that our community does have problems with asthma and that you are dedicated in your search to learn new ways to help your patients.

The purpose of the seminar is twofold. First, we will review medical regimens considered most helpful in keeping asthma symptoms under control. Second, we will discuss communication strategies and educational messages that best enable families to manage asthma at home. There will be equal emphasis on both aspects of clinical management because both are crucial to improved asthma care.

The seminar has no commercial sponsorship from pharmaceutical companies. It is supported by the National Heart, Lung, and Blood Institute.

About the Binder in Front of You:
a. Everyone should have a binder.
b. There are copies of any materials to which a speaker might refer.
c. There are also educational materials for you to use in your practice, including materials to rate yourself on aspects of interactions with patients.

Please place your pagers and cell phones on silent mode out of respect for our speakers and colleagues.
Public restrooms are located _____.

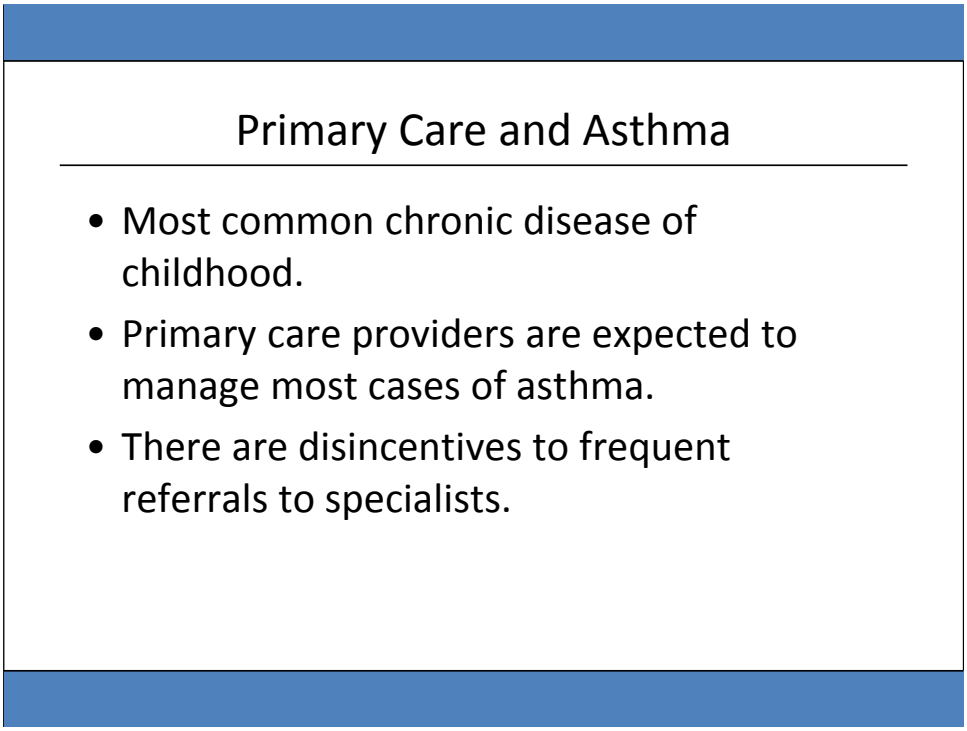
The first seminar today will cover 2 topics:
1. *(Asthma Specialist's/Primary Care Provider's Name)* will present:
    a. current concepts of therapy for asthma
    b. a preventive approach to care
    c. specific treatment plans for children with mild/moderate asthma
    d. after the presentation, there will be time for discussion.

2. *(Behavioral Scientist/Health Educator's Name)* will present:
    a. strategies to enhance/strengthen your communication with patients about managing asthma.
    b. these strategies will help your patients adhere to the treatment plan and become better self-managers.

Before (*Asthma Specialist's/Primary Care Provider's Name)* begins, I want to share with you some background information about asthma management. **(Begin Slide Show)**

Clinical Aspects of Asthma and Long-Term Management

SLIDE PRESENTATION – *PRIMARY CARE PROVIDER/ASTHMA SPECIALIST*



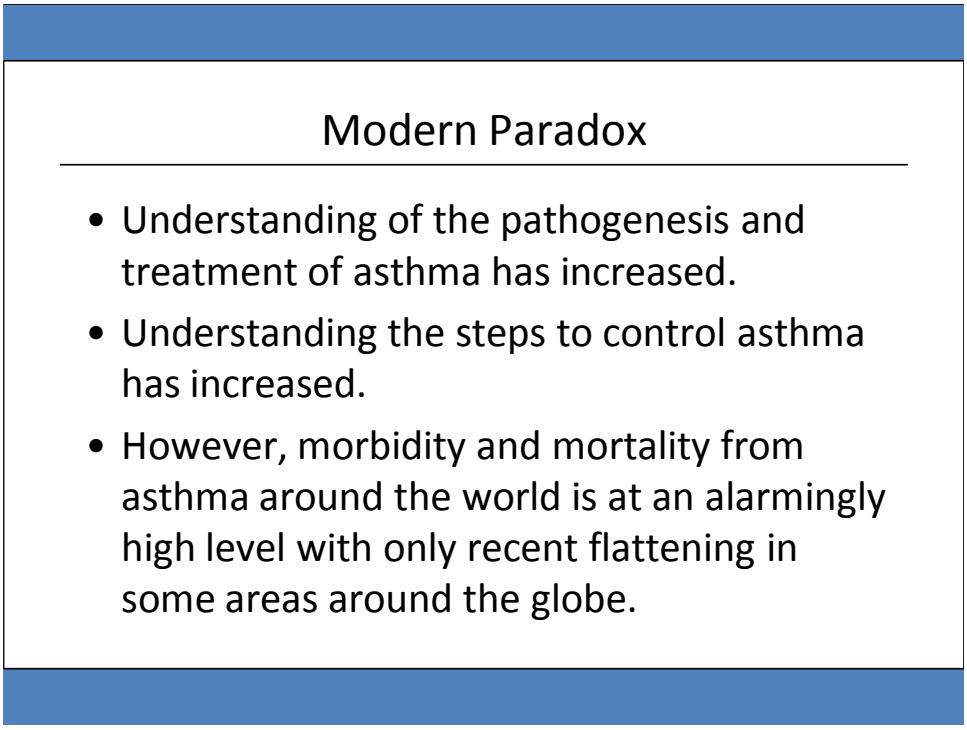
Slide 1

ADDITIONAL COMMENTS

- 7.1 million children in the U.S. have asthma
- With the medical home movement, the majority of chronic disease is now cared for by primary care providers
- Most cases of asthma — perhaps 80% — can be successfully managed by the generalist in the office
- Primary care pediatricians are under pressure to limit referrals and emergency care visits
- Better management of asthma in the office can reduce referrals to specialists and trips to the emergency department

Reference:

Forrest, C. B. & Reid, R. J. (1997). Passing the baton: HMOs' influence on referrals to specialty care. *Health Affairs (Project Hope), 16*(6), 157-162.



Slide 2

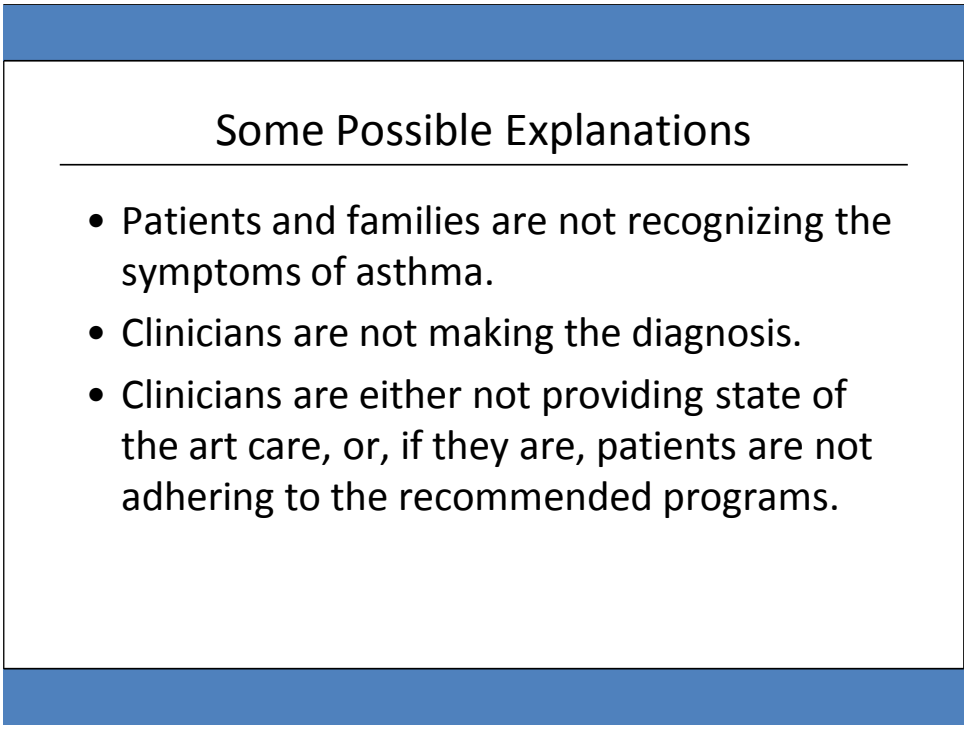
ADDITIONAL COMMENTS

- As we have developed more effective treatments for asthma, we have not seen a corresponding decrease in morbidity and mortality worldwide.

***References*:**

Akinbami, L. J., Moorman, J. E., Garbe, P. L., & Sondik, E. J. (2009). Status of childhood asthma in the United States, 1980-2007. *Pediatrics, 123 Suppl 3*, S131-45.

Moorman, J. E., et al. (2007). National surveillance for asthma--United States, 1980-2004. *MMWR. Surveillance Summaries: Morbidity and Mortality Weekly Report. Surveillance Summaries / CDC, 56*(8), 1-54.



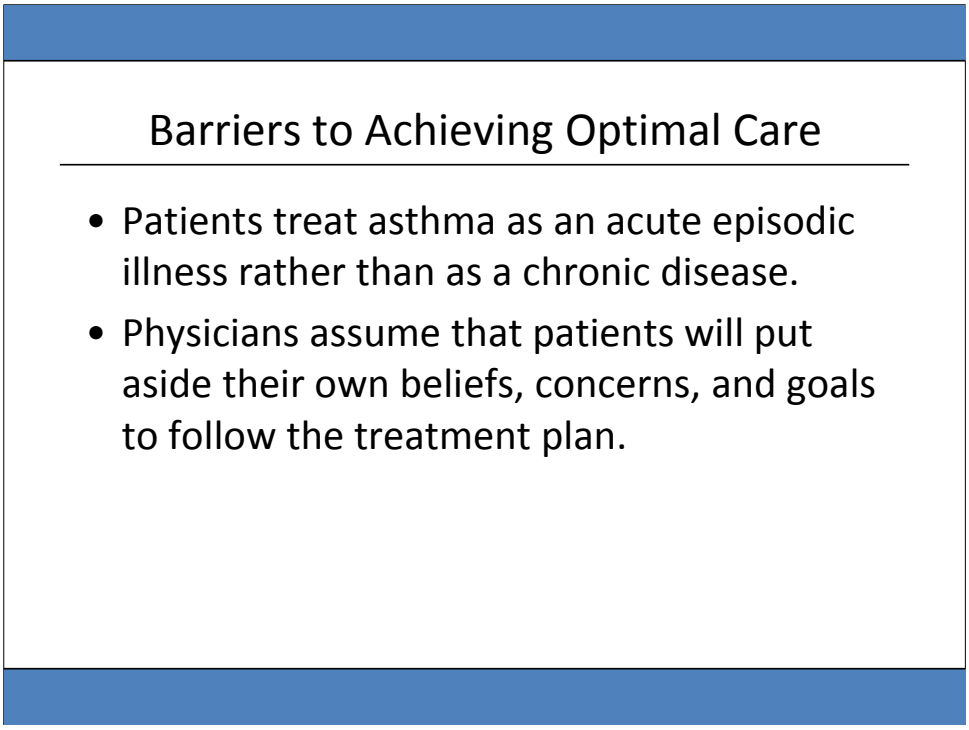
Slide 3

ADDITIONAL COMMENTS

- Many factors contribute to the under diagnosis and under treatment of asthma
- Education of both providers and patients is the key to improving asthma care

Reference:

Werk, L. N., Steinbach, S., Adams, W. G., & Bauchner, H. (2000). Beliefs about diagnosing asthma in young children. *Pediatrics, 105*(3 Pt 1), 585-590.



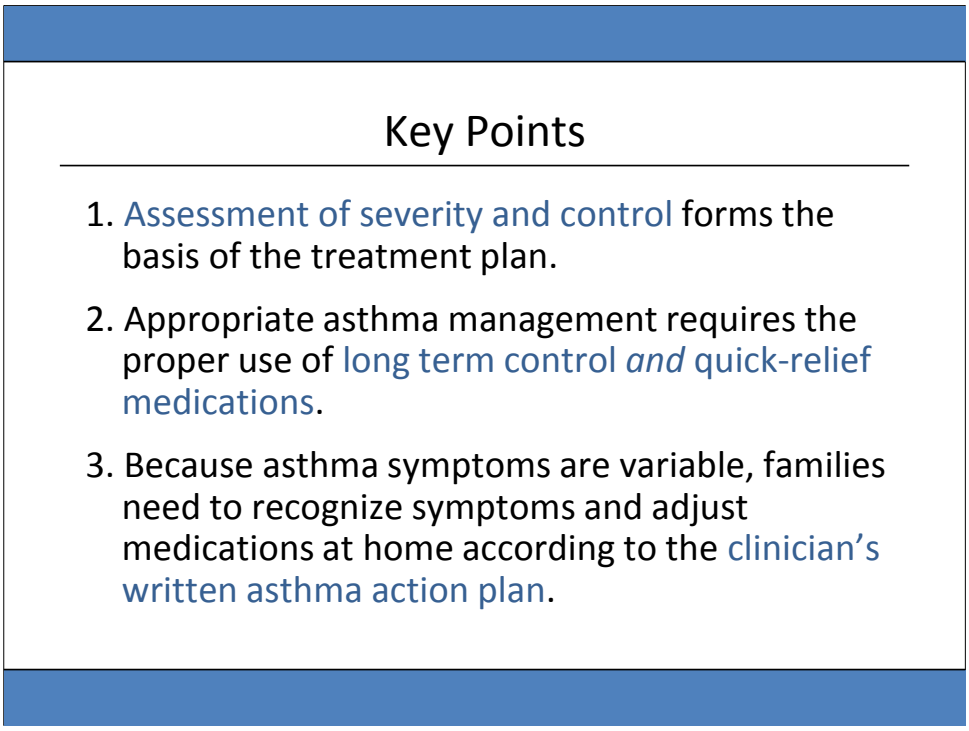
Slide 4

ADDITIONAL COMMENTS

- Patients need better understanding of the role of inflammation in asthma—that is, it's there even without symptoms
- Physicians might assume that the patient's goals and concerns are the same as the clinician's goals
- Patients and parents of children who have asthma may also misinterpret symptoms, which can lead to acute asthma episodes.

***Reference*:**

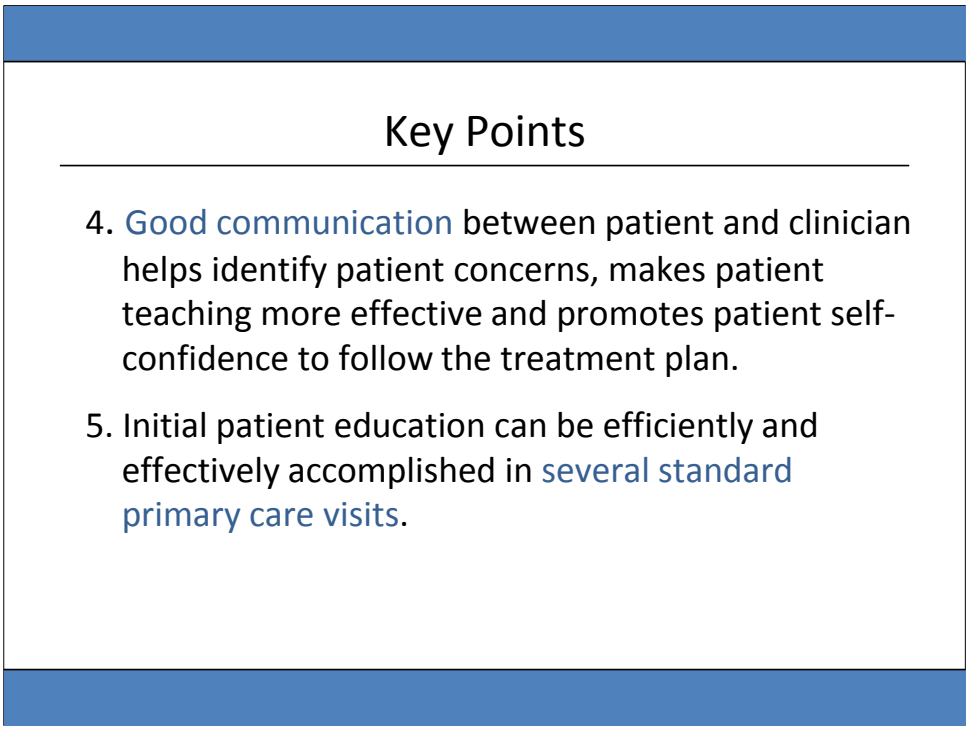
Kieckhefer, G. M. & Ratcliffe, M. (2000). What parents of children with asthma tell us. *Journal of Pediatric Health Care: Official Publication of National Association of Pediatric Nurse Associates & Practitioners, 14*(3), 122-126.



Slide 5

ADDITIONAL COMMENTS

- There are six main points we will emphasize over the next two sessions.



Slide 6

ADDITIONAL COMMENTS

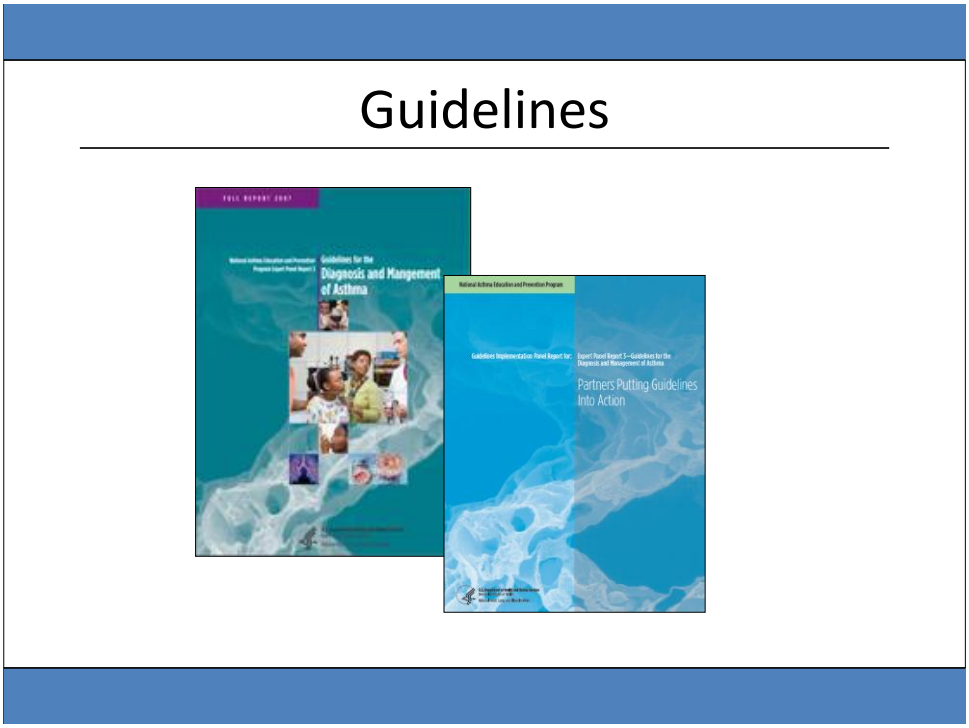
- Studies show that good clinician communication and patient teaching does not take more time. In fact, good clinician educators take less time in a patient visit because their communication is more focused and efficient.

***Reference*:**

Cabana, M. D., Slish, K. K., Evans, D., Mellins, R. B., Brown, R. W., Lin, X., et al. (2006). Impact of physician asthma care education on patient outcomes. *Pediatrics, 117*(6), 2149-2157.

Clark, N. M., Gong, M., Schork, M. A., Evans, D., Roloff, D., Hurwitz, M., et al. (1998). Impact of education for physicians on patient outcomes. *Pediatrics, 101*(5), 831-836.

Clark, N. M., Cabana, M., Kaciroti, N., Gong, M., & Sleeman, K. (2008). Long-term outcomes of physician peer teaching. *Clinical Pediatrics, 47*(9), 883-890.



Slide 7

ADDITIONAL COMMENTS

First, some background information...

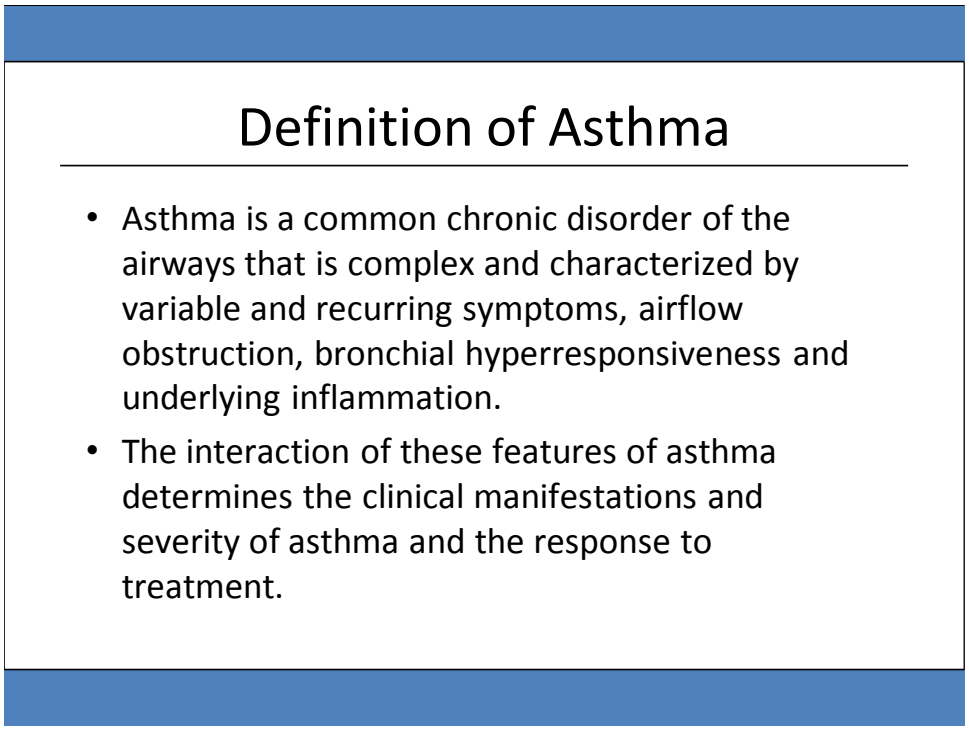
- Our first reference is the, "Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma." The National Asthma Education and Prevention Program (NAEPP), coordinated by the National Heart, Lung, and Blood Institute's (NHLBI), issued this updated set of treatment recommendations in August 2007.

- Our second reference is the NAEPP's Guidelines Implementation Panel (or GIP) report that identifies barriers and provides recommendations for implementing the NAEPP guidelines.

References:

NHLBI (2007). Expert Panel Report 3—Guidelines for the Diagnosis and Management of Asthma, http://www.nhlbi.nih.gov/guidelines/asthma/index.htm

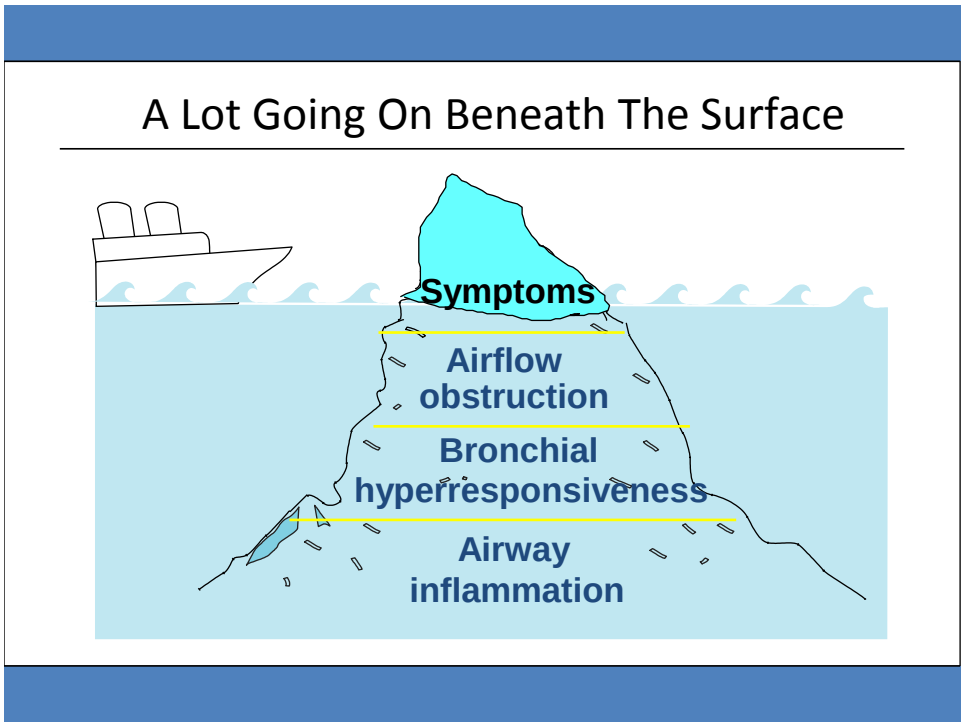
NHLBI (2008). Guidelines Implementation Panel Report: Partners Putting Guidelines into Action, http://www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.htm



Slide 8

***Reference*:**

NHLBI (2007). Expert Panel Report 3—Guidelines for the Diagnosis and Management of Asthma. Retrieved from http://www.nhlbi.nih.gov/guidelines/asthma/index.htm

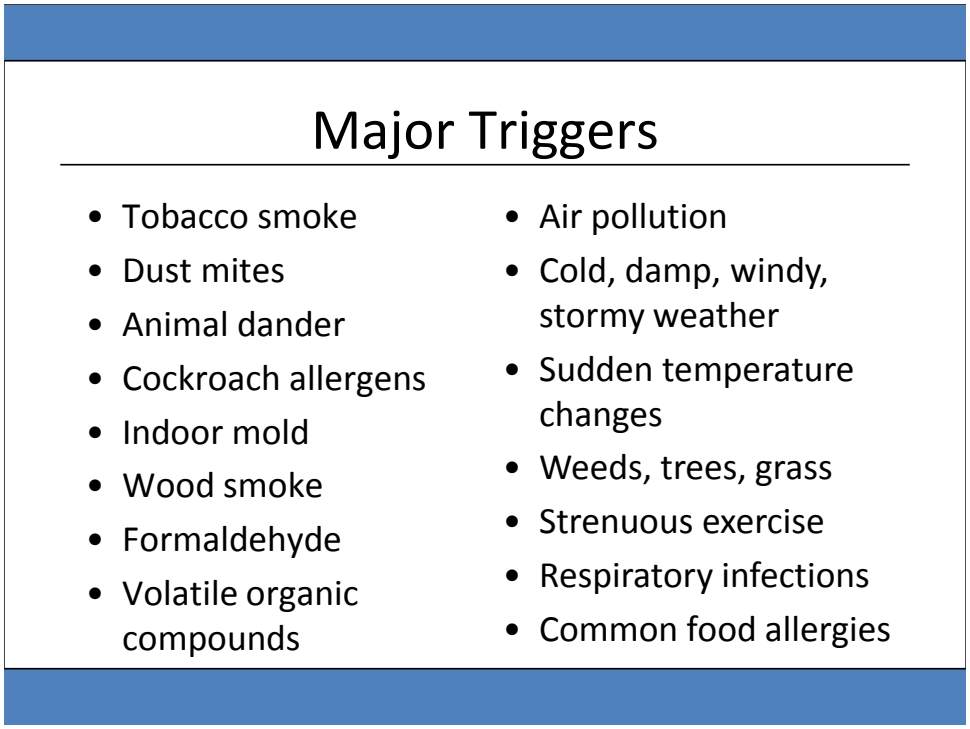


Slide 9

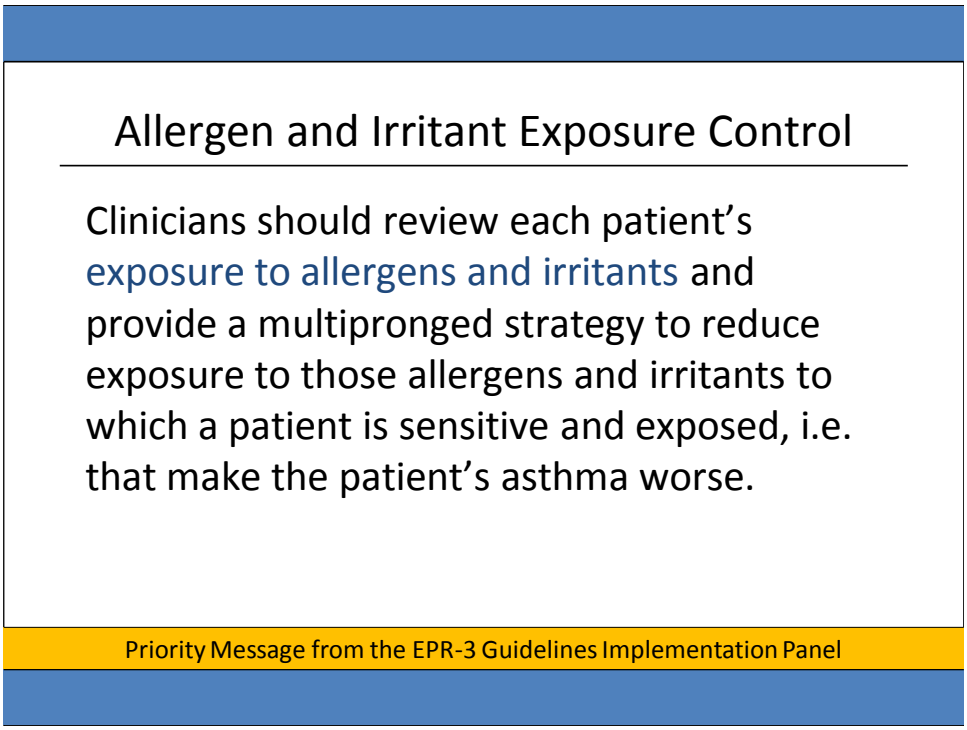
ADDITIONAL COMMENTS

With asthma, what we see is the tip of the iceberg: the symptoms.

- At the base of the iceberg is the airway inflammation.
- This inflammation underlies the bronchial hyperresponsiveness of asthma and the airflow obstruction. The culmination of this inflammatory process is the tip of the iceberg—the symptoms.
- Active inflammation of the airways can be present for 6 to 8 weeks following a severe respiratory infection.
- Airflow obstruction results from bronchoconstriction, bronchial edema, mucus hypersecretion, and inflammatory cell recruitment including eosinophils, a key inflammatory cell.


Major Triggers
• Tobacco smoke
• Dust mites
• Animal dander
• Cockroach allergens
• Indoor mold
• Wood smoke
• Formaldehyde
• Volatile organic compounds
• Air pollution
• Cold, damp, windy, stormy weather
• Sudden temperature changes
• Weeds, trees, grass
• Strenuous exercise
• Respiratory infections
• Common food allergies

Slide 10



Slide 11

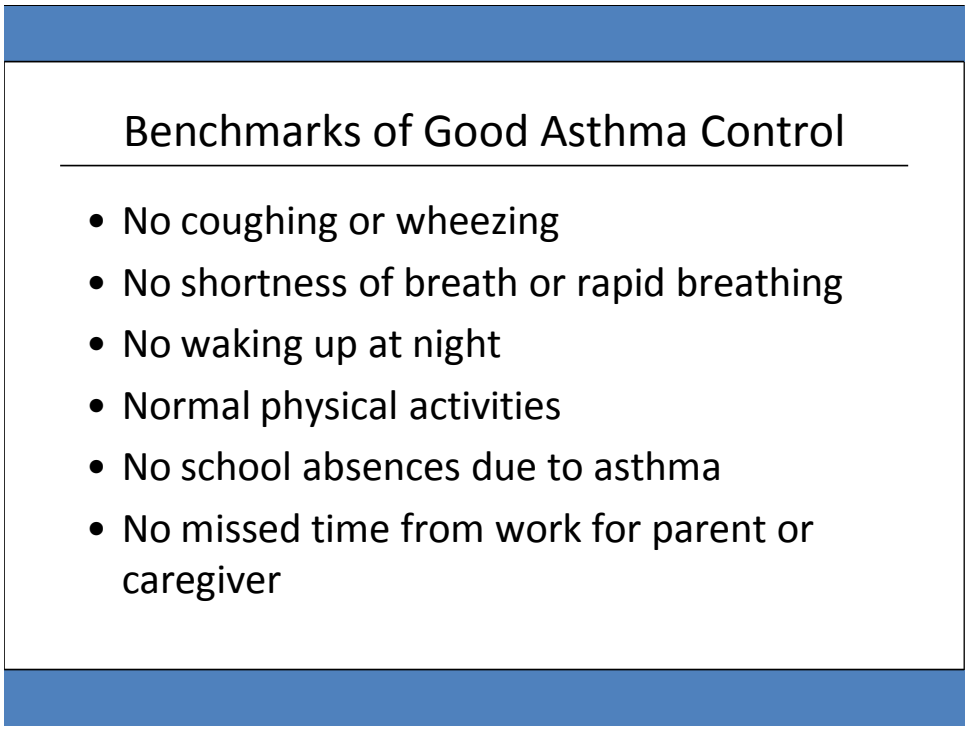
ADDITIONAL COMMENTS

- This is a **priority GIP Message**: Control Environmental Exposures
    - Evidence demonstrates that, for an allergen- and irritant-sensitive person who has asthma, substantially decreasing exposure to inhalant allergens may significantly reduce inflammation, symptoms, and the need for medication.
    - A patient's asthma action plan should identify individual allergens and irritants that worsen the patient's asthma and what actions to take to control them.
    - Community resources, including in-home support for allergen and irritant reduction, are helpful in controlling environmental factors that can make asthma worse.

References:

NHLBI (2007). Expert Panel Report 3—Guidelines for the Diagnosis and Management of Asthma. *National Institutes of Health,* http://www.nhlbi.nih.gov/guidelines/asthma/index.htm

NHLBI (2008). Guidelines Implementation Panel Report: Partners Putting Guidelines into Action, http://www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.htm



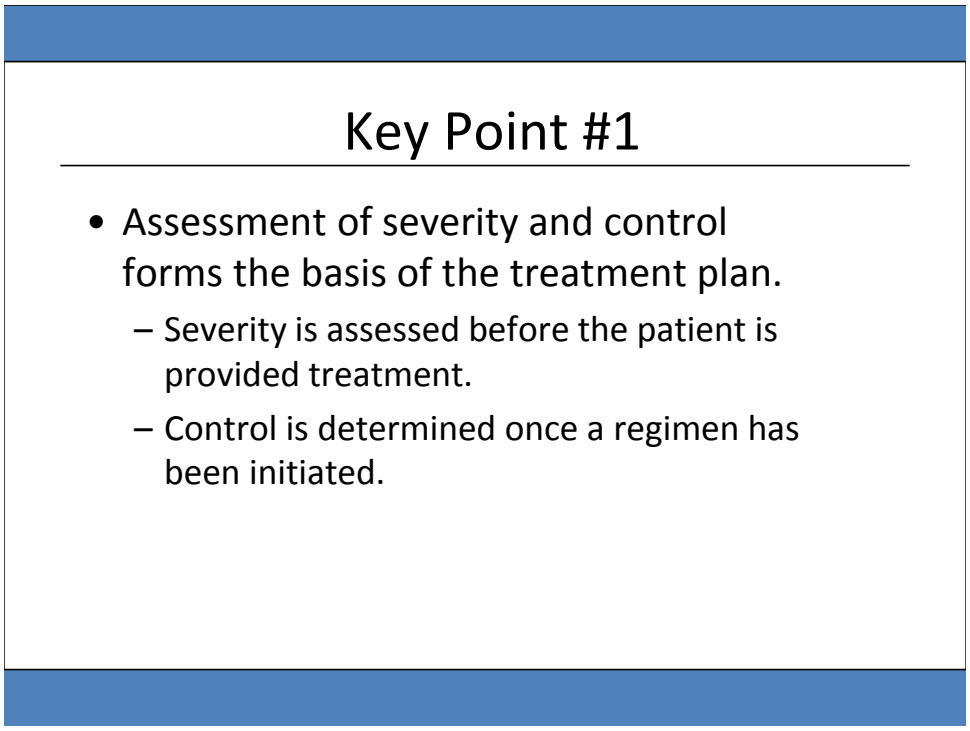
Slide 12

ADDITIONAL COMMENTS

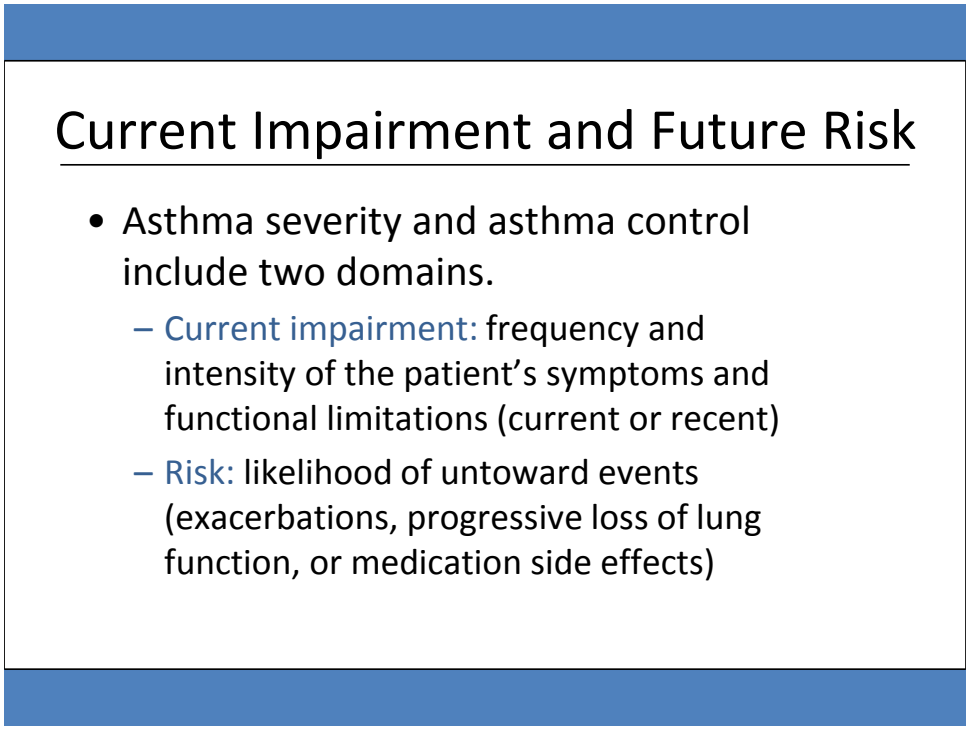
- Parents and physicians sometimes allow asthma to limit activity or expectations
- This slide lists benchmarks of good asthma control
- This leads us to key point #1. I will now turn the presentation over to (Asthma Specialist's Name).

SLIDE PRESENTATION – *ASTHMA SPECIALIST*

Slide 13

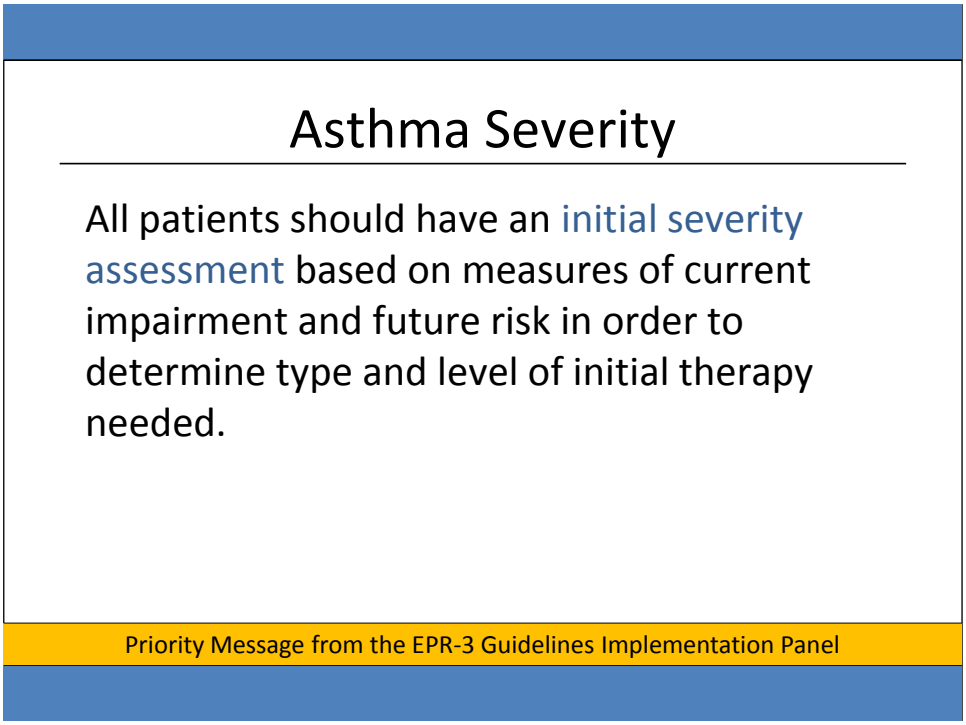

Key Point #1
• Assessment of severity and control forms the basis of the treatment plan.
– Severity is assessed before the patient is provided treatment.
– Control is determined once a regimen has been initiated.

Slide 14



Slide 15

- These domains represent different manifestations of asthma that may respond differentially to treatment—for example, some patients can have adequate symptom control and minimal impairment, but still be at significant risk of exacerbations—so these patients should be treated accordingly.



Slide 16

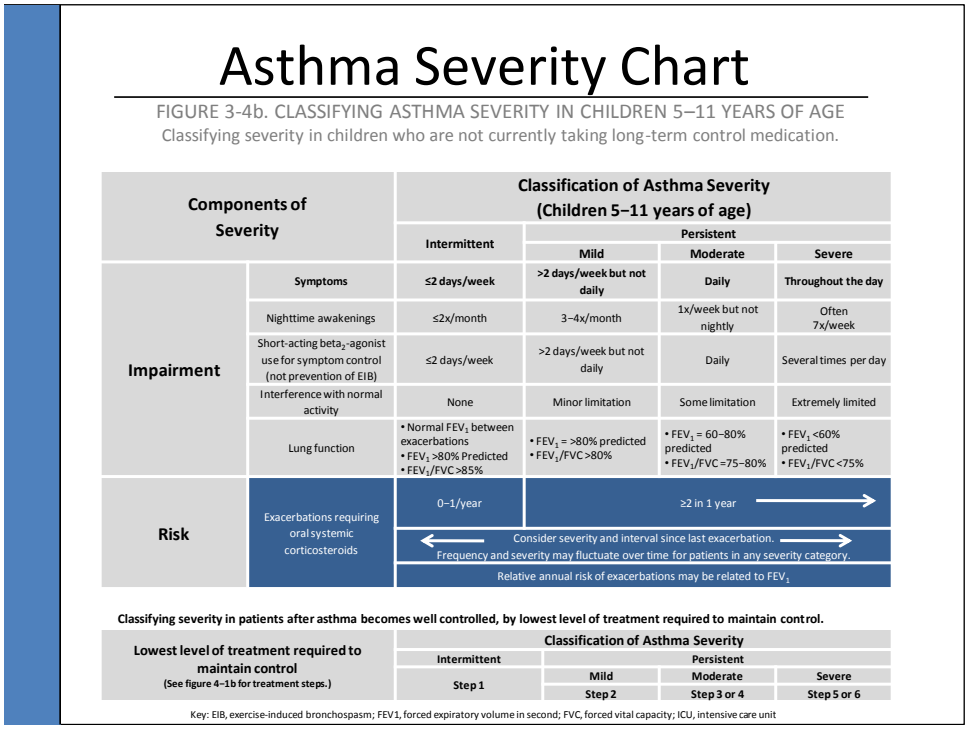
ADDITIONAL COMMENTS

- This is a **priority GIP Message**: Assess Asthma Severity
    - Clinicians should determine severity of asthma as part of their initial assessment of patients who have asthma.
    - Asthma severity should be documented in the patient's record and the significance of this assessment explained to the patient. Patients should know that regardless of severity classification, all asthma is serious and requires patients to follow their treatment plans.

References:

NHLBI (2007). Expert Panel Report 3—Guidelines for the Diagnosis and Management of Asthma. http://www.nhlbi.nih.gov/guidelines/asthma/index.htm

NHLBI (2008). Guidelines Implementation Panel Report: Partners Putting Guidelines into Action, http://www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.htm



Asthma Severity Chart

FIGURE 3-4b. CLASSIFYING ASTHMA SEVERITY IN CHILDREN 5–11 YEARS OF AGE
Classifying severity in children who are not currently taking long-term control medication.

Components of Severity		Classification of Asthma Severity (Children 5–11 years of age)			
		Intermittent	Persistent		
			Mild	Moderate	Severe
Impairment	Symptoms	≤2 days/week	>2 days/week but not daily	Daily	Throughout the day
	Nighttime awakenings	≤2x/month	3–4x/month	1x/week but not nightly	Often 7x/week
	Short-acting $beta_2$-agonist use for symptom control (not prevention of EIB)	≤2 days/week	>2 days/week but not daily	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 >85%	• FEV_1 = >80% predicted • FEV_1/FVC >80%	• FEV_1 = 60–80% predicted • FEV_1/FVC =75–80%	• FEV_1 <60% predicted • FEV_1/FVC <75%
Risk	Exacerbations requiring oral systemic corticosteroids	0–1/year	≥2 in 1 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			

Classifying severity in patients after asthma becomes well controlled, by lowest level of treatment required to maintain control.

Lowest level of treatment required to maintain control (See figure 4–1b for treatment steps.)	Classification of Asthma Severity			
	Intermittent	Persistent		
	Step 1	Mild	Moderate	Severe
		Step 2	Step 3 or 4	Step 5 or 6

Key: EIB, exercise-induced bronchospasm; FEV1, forced expiratory volume in second; FVC, forced vital capacity; ICU, intensive care unit

Slide 17

ADDITIONAL COMMENTS

- Here is a summary of the general classifications of asthma severity according to the assessment of impairment and risk.

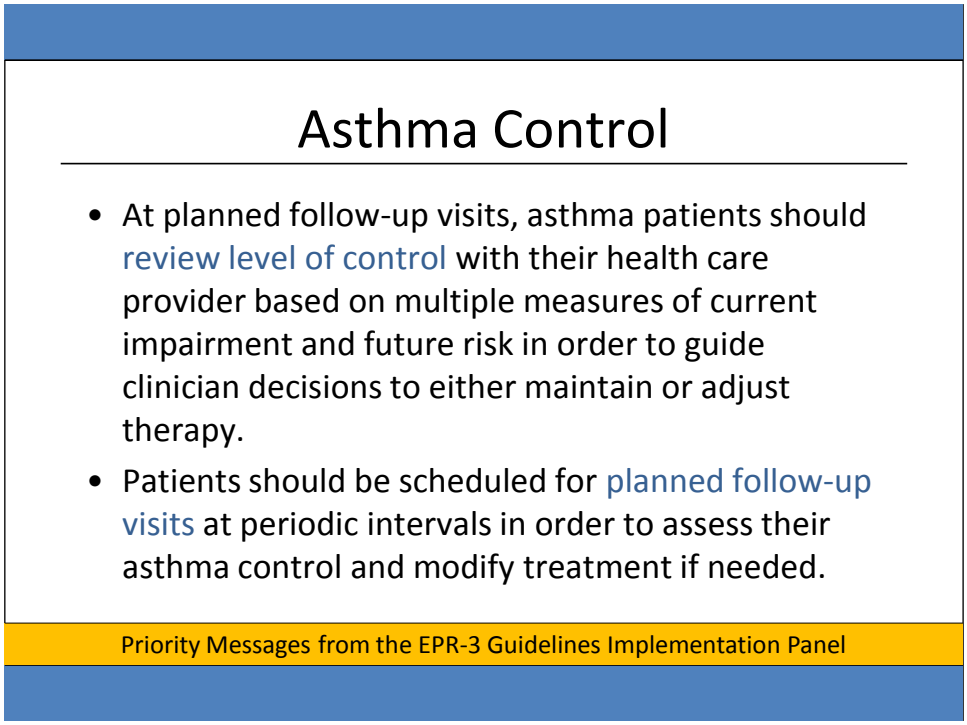
- The chart breaks down severity into two domains: intermittent and persistent classifications with increasing degrees of mild, moderate and severe symptom experience. This chart represents the 5-12 year old age group and each age cohort may have different aspects that help describe the severity of the patient's asthma for the clinician.
- Patients should be assigned to the most severe step in which any clinical feature of the patient's asthma occurs. Clinical features for individual patients may overlap across steps. An individual's classification may change over time.

- Some patients with intermittent asthma experience severe and life-threatening exacerbations separated by long periods of normal lung function and no symptoms.

- Note that peak flow does not discriminate between milder forms of asthma. Peak flow meters are designed as monitoring, not as diagnostic, tools in the office. Spirometry (for patients age five years or older) is the preferred method for measuring lung function to classify severity.

- Use the patient's personal best PEF of FEV_1 and not the predicted normal.

- PEF variability 20% or greater also suggests persistent asthma.



Slide 18 **ADDITIONAL COMMENTS**

- This is a **priority GIP Message**: Assess and Monitor Asthma Control.

- Once therapy is initiated, the emphasis for clinical management thereafter is changed to the assessment of asthma control. Since asthma is highly variable over time, assess asthma control at every visit to guide decisions to maintain or to adjust therapy.

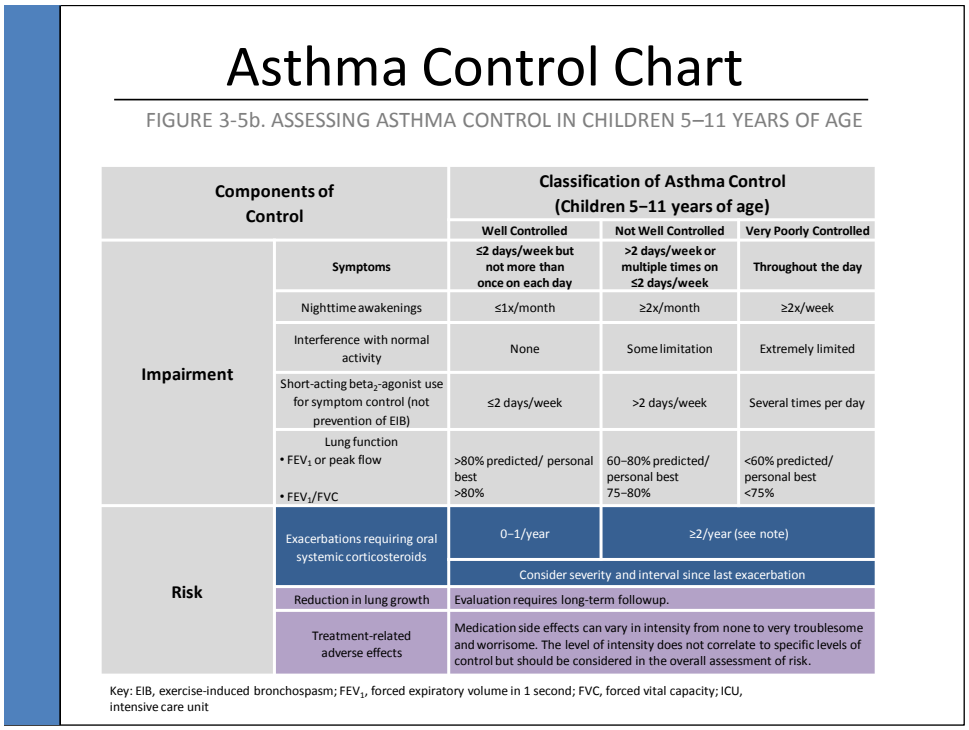
- Use multiple measures of impairment and risk. Different measures assess different manifestations of asthma. For example, pulmonary function measures often do not correlate directly with symptoms. Validated questionnaires, such as ATAQ (Asthma Therapy Assessment Questionnaire©) and ACT (Asthma Control Test™), do not assess lung function or risk but may be used for the impairment domain.

- Teach patients to self-monitor asthma control and signs of worsening asthma with symptom and/or peak flow monitoring. Peak flow monitoring may be particularly helpful for patients who have difficulty perceiving symptoms, a history of severe exacerbations, or moderate or severe asthma.

References:

NHLBI (2007). Expert Panel Report 3—Guidelines for the Diagnosis and Management of Asthma. www.nhlbi.nih.gov/guidelines/asthma/index.htm

NHLBI (2008). Guidelines Implementation Panel Report: Partners Putting Guidelines into Action, http://www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.htm



Asthma Control Chart

FIGURE 3-5b. ASSESSING ASTHMA CONTROL IN CHILDREN 5–11 YEARS OF AGE

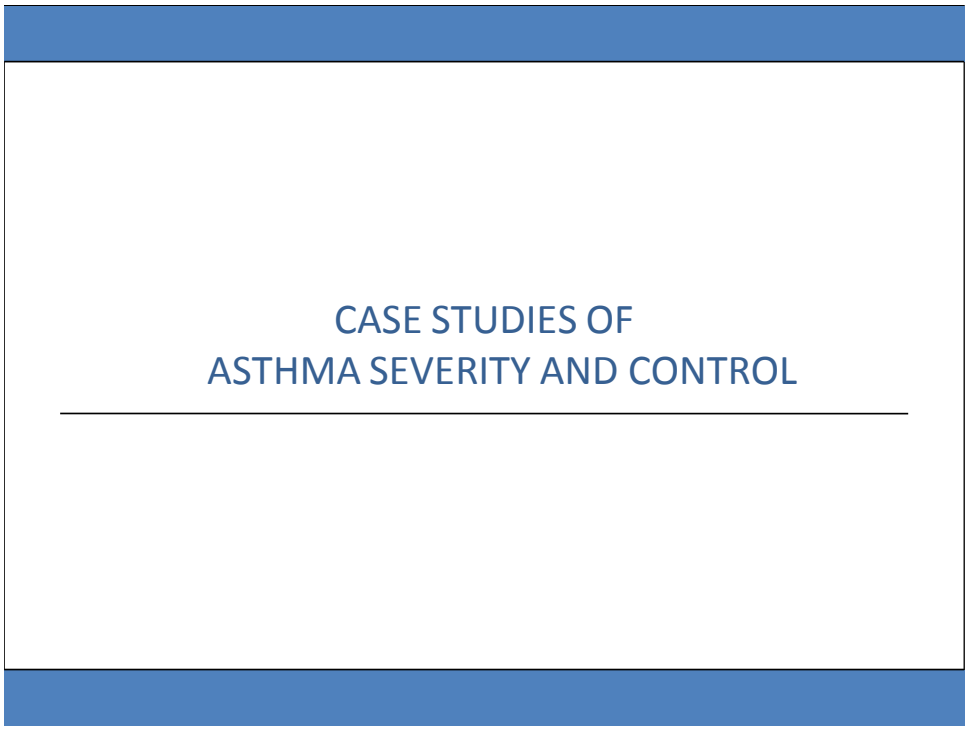
Components of Control		Classification of Asthma Control (Children 5–11 years of age)		
		Well Controlled	**Not Well Controlled**	**Very Poorly Controlled**
Impairment	**Symptoms**	**≤2 days/week but not more than once on each day**	**>2 days/week or multiple times on ≤2 days/week**	**Throughout the day**
	Nighttime awakenings	≤1x/month	≥2x/month	≥2x/week
	Interference with normal activity	None	Some limitation	Extremely limited
	Short-acting beta$_2$-agonist use for symptom control (not prevention of EIB)	≤2 days/week	>2 days/week	Several times per day
	Lung function • FEV_1 or peak flow • FEV_1/FVC	>80% predicted/ personal best >80%	60–80% predicted/ personal best 75–80%	<60% predicted/ personal best <75%
Risk	Exacerbations requiring oral systemic corticosteroids	0–1/year	≥2/year (see note)	
		Consider severity and interval since last exacerbation		
	Reduction in lung growth	Evaluation requires long-term followup.		
	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.		

Key: EIB, exercise-induced bronchospasm; FEV_1, forced expiratory volume in 1 second; FVC, forced vital capacity; ICU, intensive care unit

Slide 19

ADDITIONAL COMMENTS

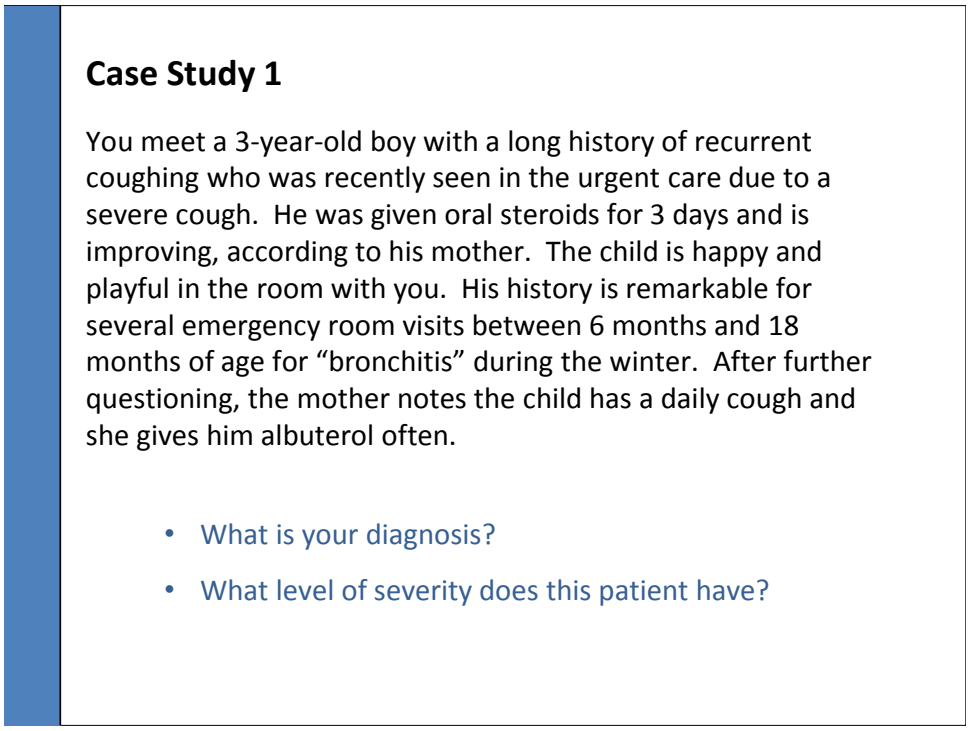
- This chart graphically represents clinical criteria that help the clinician determine the level of asthma control. This is divided into "Well Controlled"; "Not Well Controlled"; and "Poorly Controlled" categories. Note the changes in clinical impairment in addition to the overall risk of these clinical states to the patient. In different age groups, there may be different clinical criteria uses. Since this chart refers to children 5-11, spirometry may be a factor to consider.



Slide 20

ADDITIONAL COMMENTS

- Let's look at a few case studies.



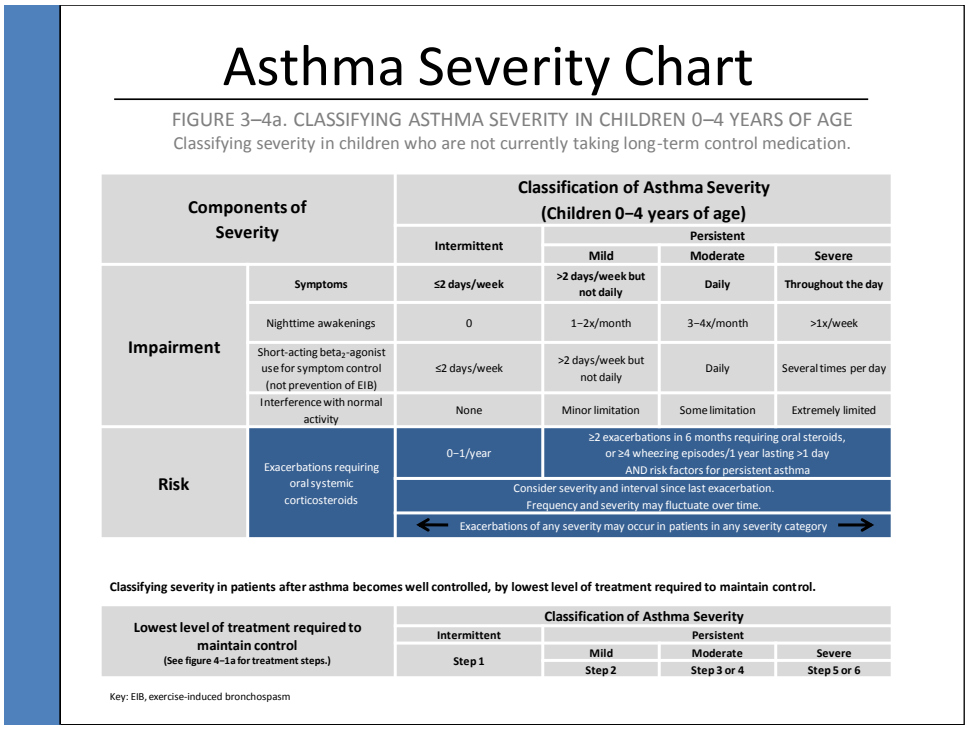
Slide 21

ADDITIONAL COMMENTS

♦ What is your diagnosis?

Answer:
This case allows the learner to confirm an initial diagnosis of asthma. It is appropriate here to discuss other diagnoses often given to asthma patients instead of asthma. The proper diagnosis of asthma not only allows the physician to better guide patient therapy, it also allows the patient's family to access appropriate educational resources outside of the medical home.

The severity level is moderate persistent asthma since the patient exhibits daily symptoms.



Asthma Severity Chart

FIGURE 3–4a. CLASSIFYING ASTHMA SEVERITY IN CHILDREN 0–4 YEARS OF AGE
Classifying severity in children who are not currently taking long-term control medication.

Components of Severity		Classification of Asthma Severity (Children 0–4 years of age)			
		Intermittent	Persistent		
			Mild	Moderate	Severe
Impairment	Symptoms	≤2 days/week	>2 days/week but not daily	Daily	Throughout the day
	Nighttime awakenings	0	1–2x/month	3–4x/month	>1x/week
	Short-acting beta$_2$-agonist use for symptom control (not prevention of EIB)	≤2 days/week	>2 days/week but not daily	Daily	Several times per day
	Interference with normal activity	None	Minor limitation	Some limitation	Extremely limited
Risk	Exacerbations requiring oral systemic corticosteroids	0–1/year	≥2 exacerbations in 6 months requiring oral steroids, or ≥4 wheezing episodes/1 year lasting >1 day AND risk factors for persistent asthma		
		Consider severity and interval since last exacerbation. Frequency and severity may fluctuate over time.			
		← Exacerbations of any severity may occur in patients in any severity category →			

Classifying severity in patients after asthma becomes well controlled, by lowest level of treatment required to maintain control.

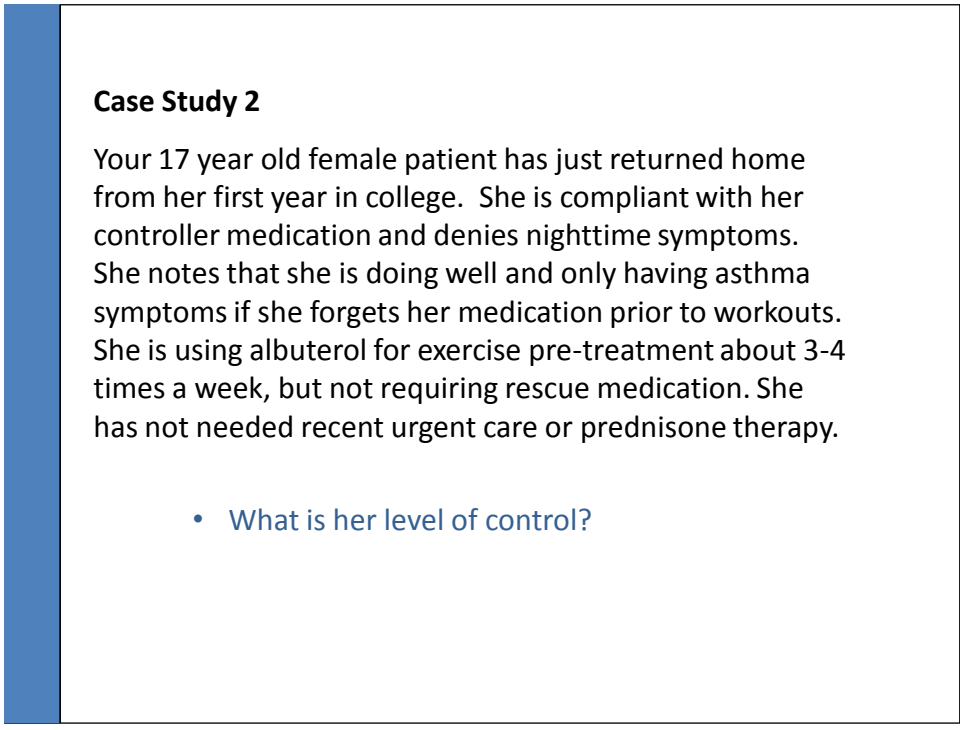
Lowest level of treatment required to maintain control (See figure 4–1a for treatment steps.)	Classification of Asthma Severity			
	Intermittent	Persistent		
		Mild	Moderate	Severe
	Step 1	Step 2	Step 3 or 4	Step 5 or 6

Key: EIB, exercise-induced bronchospasm

Slide 22

ADDITIONAL COMMENTS

- NOTE: NHLBI Classification of Severity or control chart follows each case study.



Slide 23

ADDITIONAL COMMENTS

- What is her level of control?

  Answer:

  Well-controlled

  This patient is without active asthma symptoms and compliant with controller therapy. While she does exhibit exercise-induced bronchospasm, her albuterol use is preventive and does not negate her well-controlled status. Further, since she has had well-controlled asthma over a significant period of time, an appropriate clinician-patient conversation at this time might include mention of "step-down" controller medication adjustment.

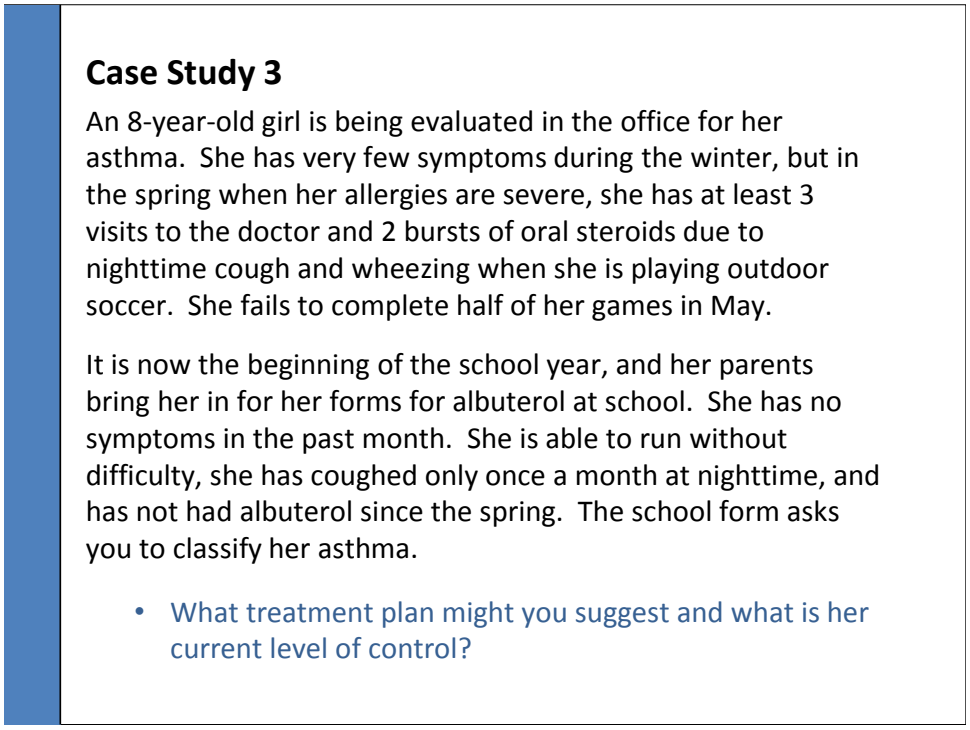
Asthma Control Chart

FIGURE 3-5c. ASSESSING ASTHMA CONTROL IN YOUTHS ≥ 12 YEARS OF AGE AND ADULTS

Components of Control		Classification of Asthma Control (Children 5–11 years of age)		
		Well Controlled	**Not Well Controlled**	**Very Poorly Controlled**
Impairment	**Symptoms**	**≤2 days/week**	**>2 days/week**	**Throughout the day**
	Nighttime awakenings	≤2x/month	1-3x/week	≥4x/week
	Interference with normal activity	None	Some limitation	Extremely limited
	Short-acting beta$_2$-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	0–1/year	≥2/year (see note)	
		Consider severity and interval since last exacerbation		
	Progressive loss of lung function	Evaluation requires long-term followup 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.		

*ACQ values of 0.76–1.4 are indeterminate regarding well-controlled asthma.
Key: EIB, exercise-induced bronchospasm; FEV_1, forced expiratory volume in 1 second. See figure 3–8 for full name and source of ATAQ, ACQ, ACT.

Slide 24



Slide 25

ADDITIONAL COMMENTS

OPTIONAL CASE

- What is her control level?
- What treatment plan might you suggest?

Answer:

This patient has severe persistent asthma, which is poorly-controlled seasonally each spring. Her extreme interference with activity defines her asthma severity level. While she is, at present, well-controlled, clinician-family conversation regarding a better management plan in anticipation of her spring triggers is appropriate. In addition, discussion of co-morbid concern, diagnosis, and treatment (for example, allergies) is welcomed in the context of overall asthma management.

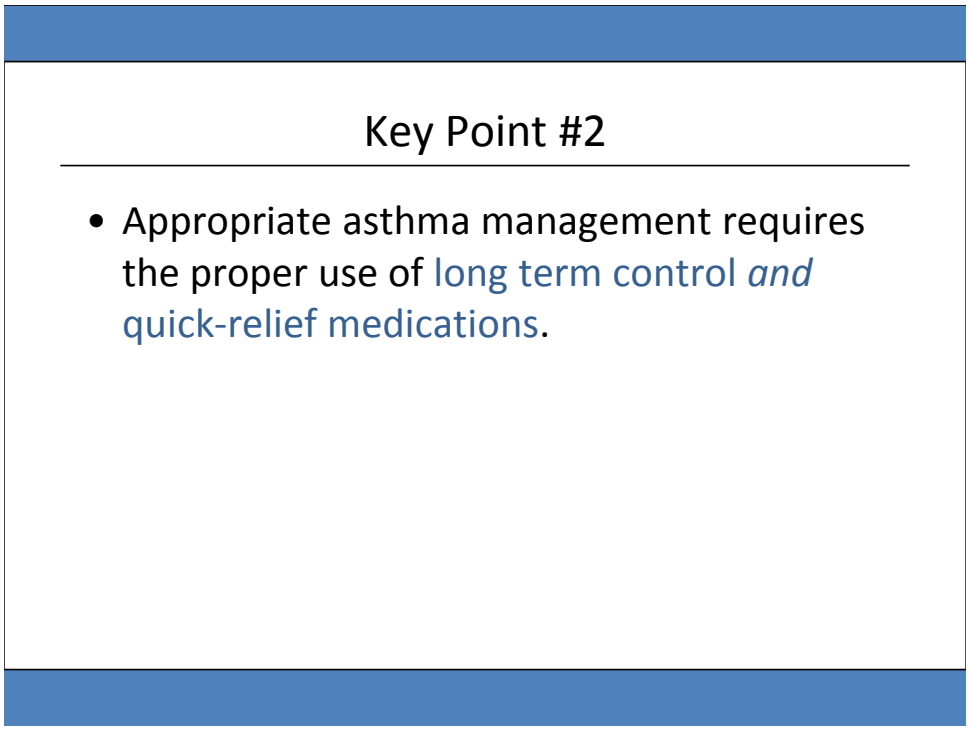
Asthma Control Chart

FIGURE 3-5b. ASSESSING ASTHMA CONTROL IN CHILDREN 5–11 YEARS OF AGE

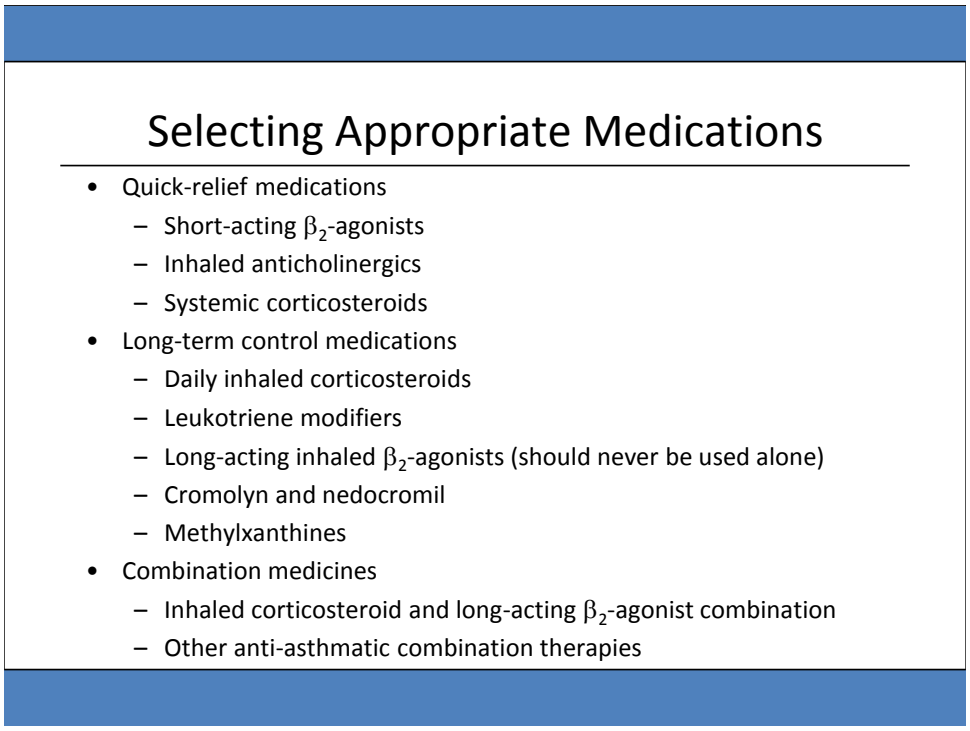
Components of Control		Classification of Asthma Control (Children 5–11 years of age)		
		Well Controlled	**Not Well Controlled**	**Very Poorly Controlled**
Impairment	**Symptoms**	**≤2 days/week but not more than once on each day**	**>2 days/week or multiple times on ≤2 days/week**	**Throughout the day**
	Nighttime awakenings	≤1x/month	≥2x/month	≥2x/week
	Interference with normal activity	None	Some limitation	Extremely limited
	Short-acting beta$_2$-agonist use for symptom control (not prevention of EIB)	≤2 days/week	>2 days/week	Several times per day
	Lung function • FEV_1 or peak flow • FEV_1/FVC	>80% predicted/ personal best >80%	60–80% predicted/ personal best 75–80%	<60% predicted/ personal best <75%
Risk	Exacerbations requiring oral systemic corticosteroids	0–1/year	≥2/year (see note)	
		Consider severity and interval since last exacerbation		
	Reduction in lung growth	Evaluation requires long-term followup.		
	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.		

Key: EIB, exercise-induced bronchospasm; FEV_1, forced expiratory volume in 1 second; FVC, forced vital capacity; ICU, intensive care unit

Slide 26


Key Point #2
• Appropriate asthma management requires the proper use of long term control *and* quick-relief medications.

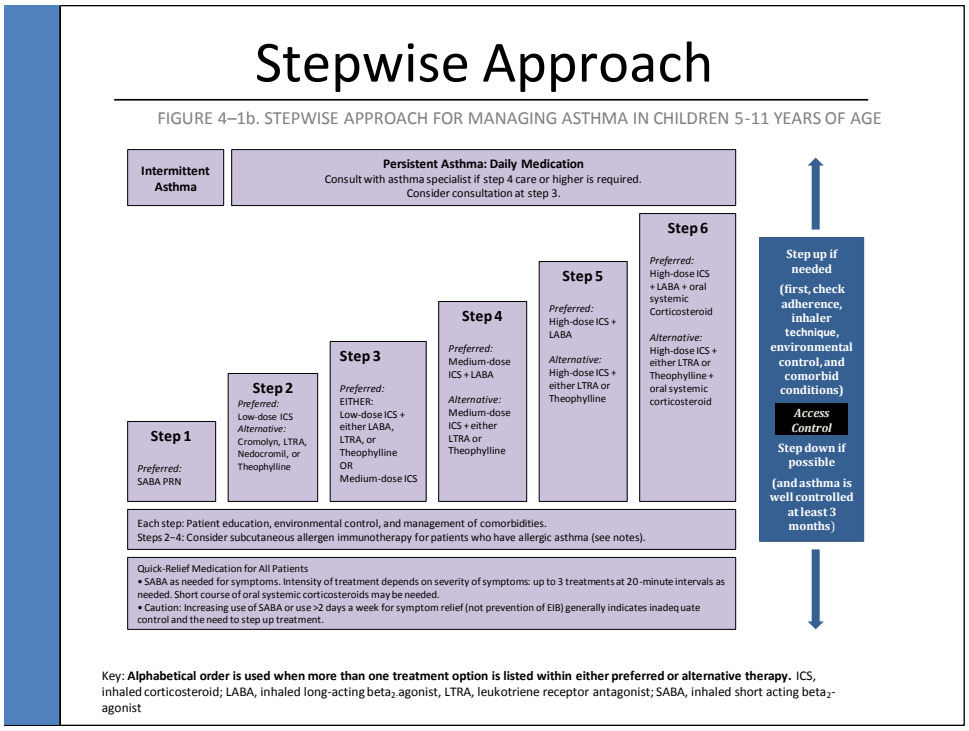
Slide 27



Slide 28

ADDITIONAL COMMENTS

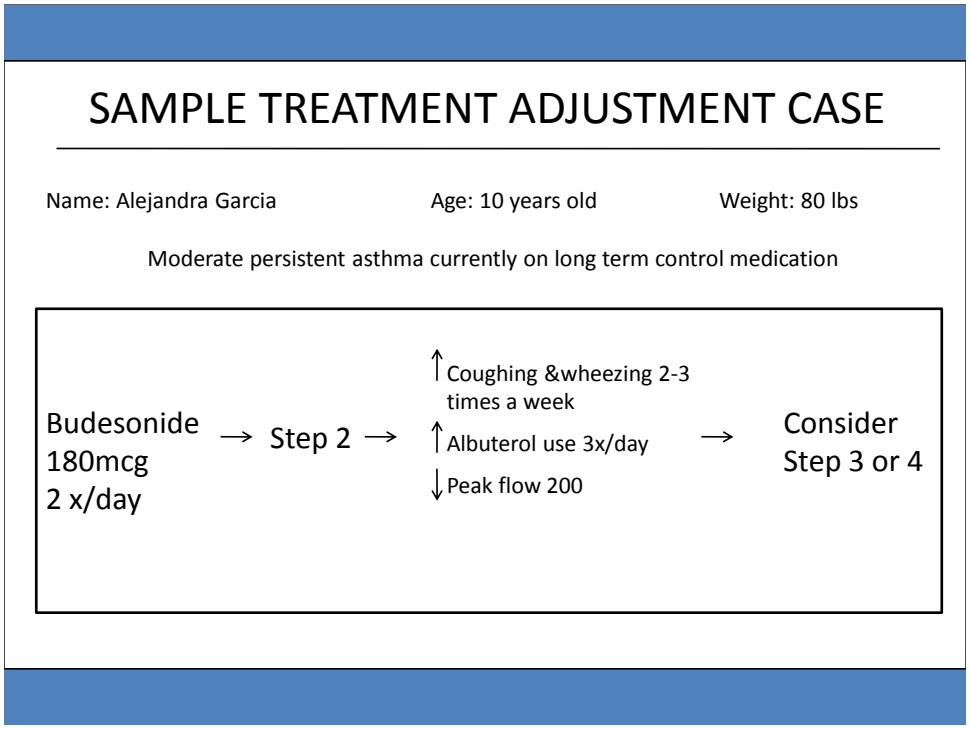
- The NHLBI guidelines distinguish between quick-relief medications and long-term control medications.
- Note that daily inhaled corticosteroids are the most effective long-term control medication.
- Note that cromolyn and nedocromil were scheduled for FDA phase-out in 2010.



Slide 29

ADDITIONAL COMMENTS

- The NHLBI guidelines suggest the use of long-term control medications for patients with persistent asthma.
- The type, amount, and scheduling of medication is initiated based on asthma *severity* and adjusted (stepped up or down) based on the level of asthma *control*.
- A handout is enclosed that offers suggestions and doses for each of the six steps of care.



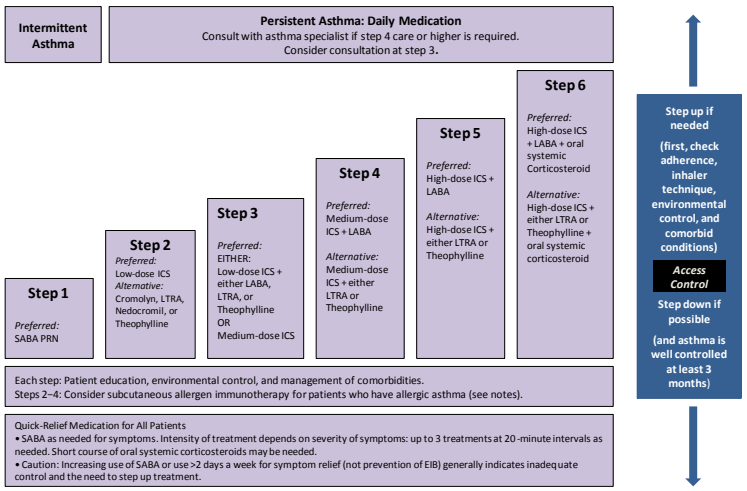
Slide 30

ADDITIONAL COMMENTS

- Consider the stepwise approach for adjusting treatment options when symptoms change.

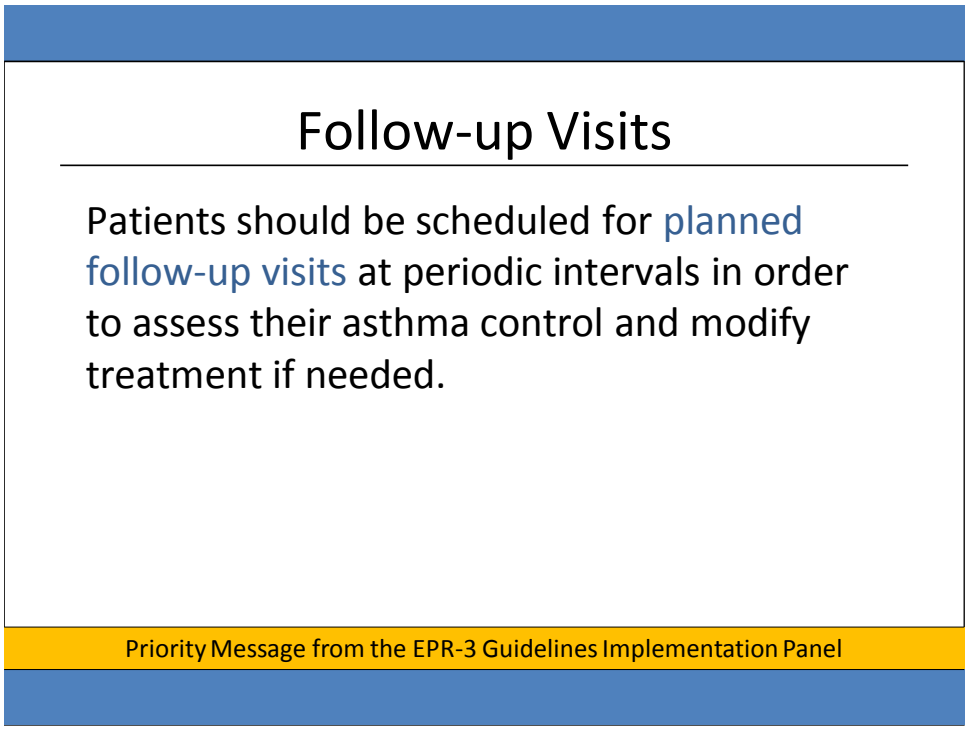
Stepwise Approach

FIGURE 4–1b. STEPWISE APPROACH FOR MANAGING ASTHMA IN CHILDREN 5-11 YEARS OF AGE



Key: **Alphabetical order is used when more than one treatment option is listed within either preferred or alternative therapy.** ICS, inhaled corticosteroid; LABA, inhaled long-acting beta$_2$ agonist, LTRA, leukotriene receptor antagonist; SABA, inhaled short acting beta$_2$-agonist

Slide 31



Slide 32

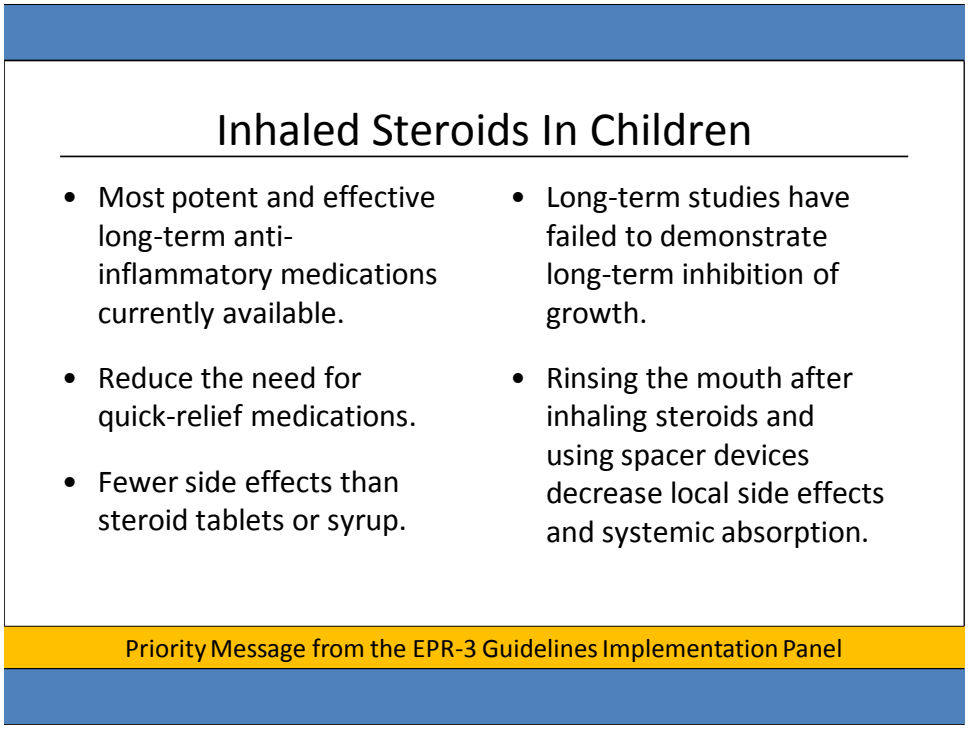
ADDITIONAL COMMENTS

- This is a **priority GIP Message**: Schedule Follow-up Visits
    - Because response to asthma therapy may vary, periodic monitoring of asthma control through clinical visits is essential to "step up" therapy as necessary; or, "step down" when possible to the minimum medication necessary to maintain control.

References:

NHLBI (2007). Expert Panel Report 3—Guidelines for the Diagnosis and Management of Asthma, http://www.nhlbi.nih.gov/guidelines/asthma/index.htm

NHLBI (2008). Guidelines Implementation Panel Report: Partners Putting Guidelines into Action, http://www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.htm



Slide 33

ADDITIONAL COMMENTS

- There is still considerable controversy that inhaled steroids may inhibit growth in children, but here is what we know now:
  - Families should also understand that poorly controlled asthma can lead to impaired growth as well and that risks and benefits have been weighed carefully in developing the treatment plan.
  - It is reassuring for patients to know that once the asthma is brought under good control, the dose of inhaled steroids will be reduced if at all possible.

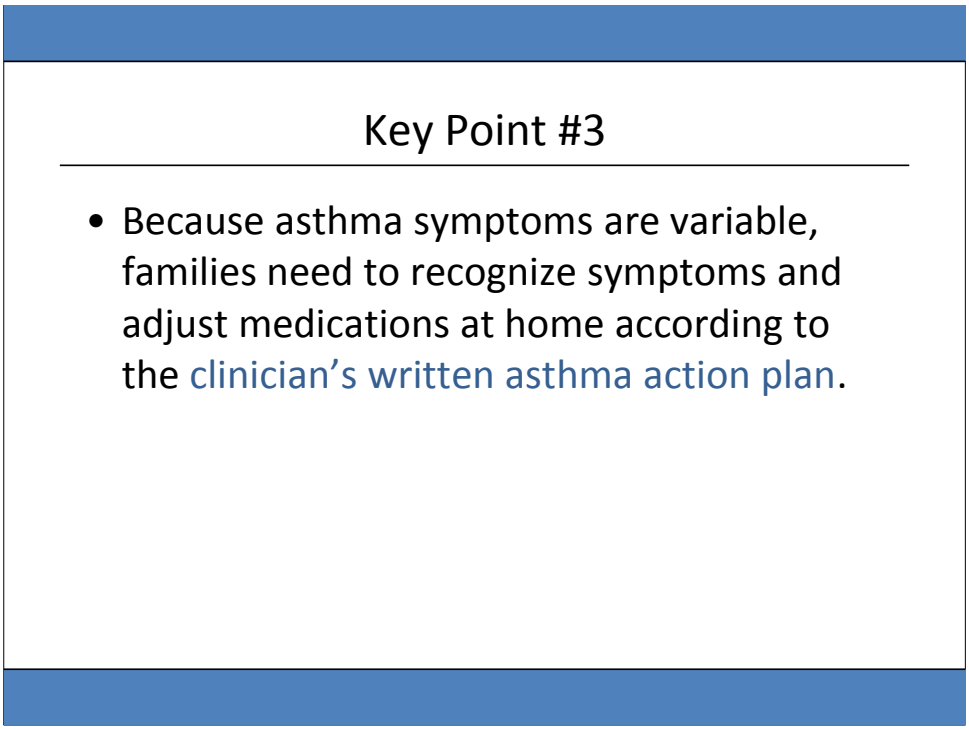
- This is a **priority GIP message**: Use Inhaled Corticosteroids. Again, these medications are the *most effective* long-term therapy available for persistent asthma. In general, inhaled corticosteroids are *well tolerated* and *safe* at the recommended dosages.

References:

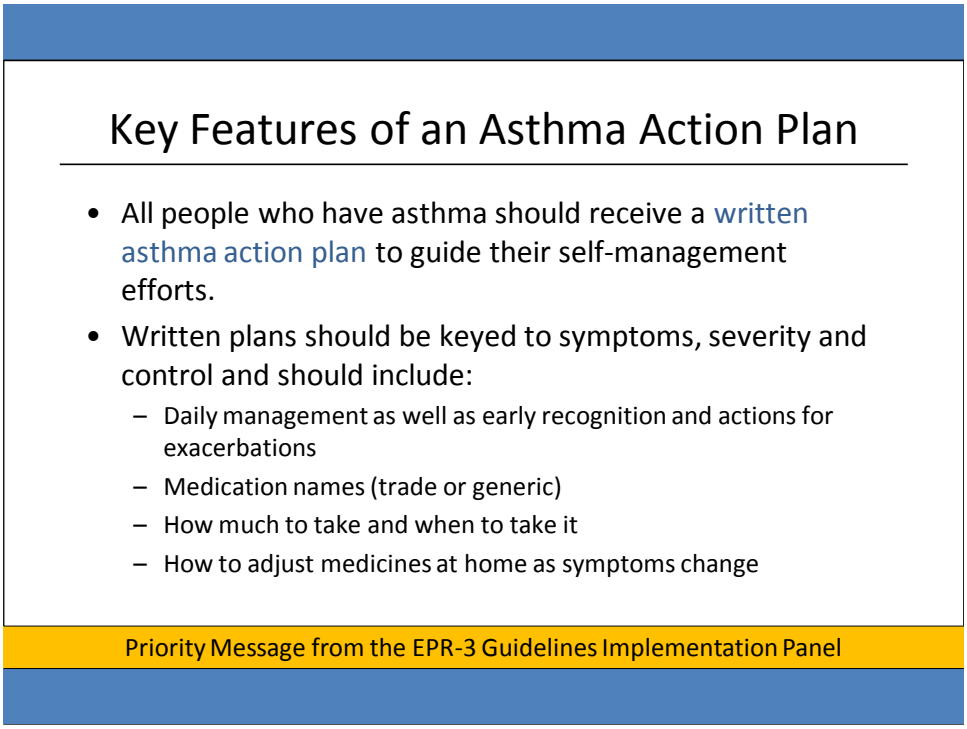
Allen, D. B. (2002). Inhaled corticosteroid therapy for asthma in preschool children: Growth issues. *Pediatrics, 109*(2 Suppl), 373-380.

NHLBI (2007). Expert Panel Report 3—Guidelines for the Diagnosis and Management of Asthma, http://www.nhlbi.nih.gov/guidelines/asthma/index.htm

NHLBI (2008). Guidelines Implementation Panel Report: Partners Putting Guidelines into Action, http://www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.htm


Key Point #3
• Because asthma symptoms are variable, families need to recognize symptoms and adjust medications at home according to the clinician's written asthma action plan.

Slide 34



Slide 35

ADDITIONAL COMMENTS

- There are many asthma action plans that can be useful. Here are key features to include in any successful action plan...
- These plans are designed for common cases. The unusual or very severe patients will need to be referred to specialists.
- This is a **priority GIP message**: Use Written Asthma Action Plans

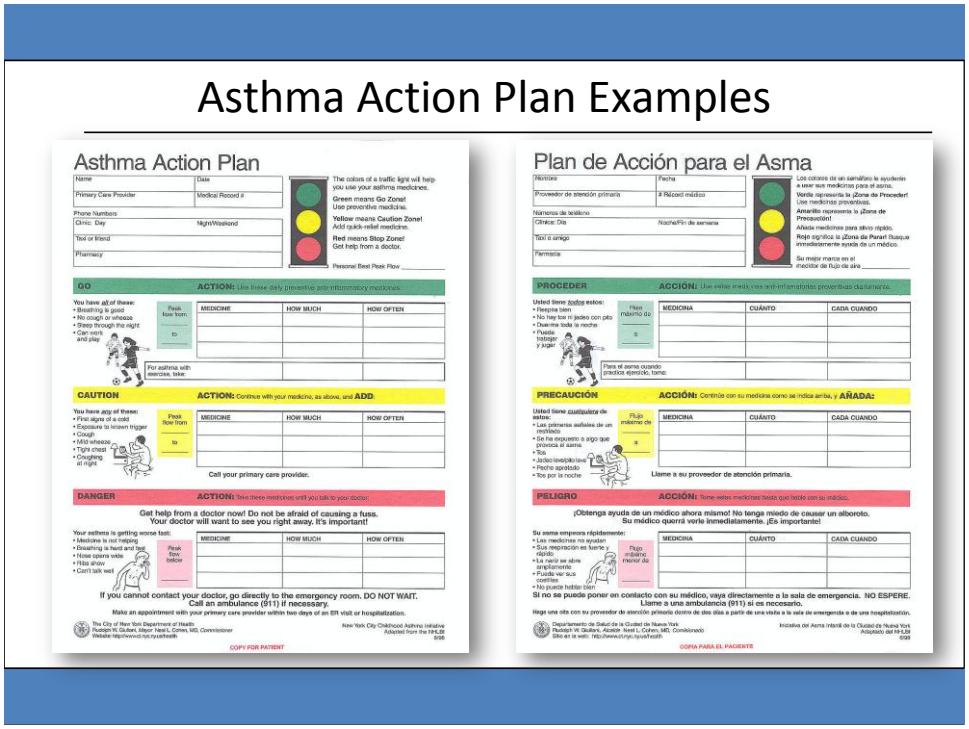
***Reference*:**

de Asis, M. L. & Greene, R. (2004). A cost-effectiveness analysis of a peak flow-based asthma education and self-management plan in a high-cost population. *The Journal of Asthma, 41*(5), 559-565.

NHLBI (2007). Expert Panel Report 3—Guidelines for the Diagnosis and Management of Asthma, http://www.nhlbi.nih.gov/guidelines/asthma/index.htm

NHLBI (2008). Guidelines Implementation Panel Report: Partners Putting Guidelines into Action, http://www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.htm

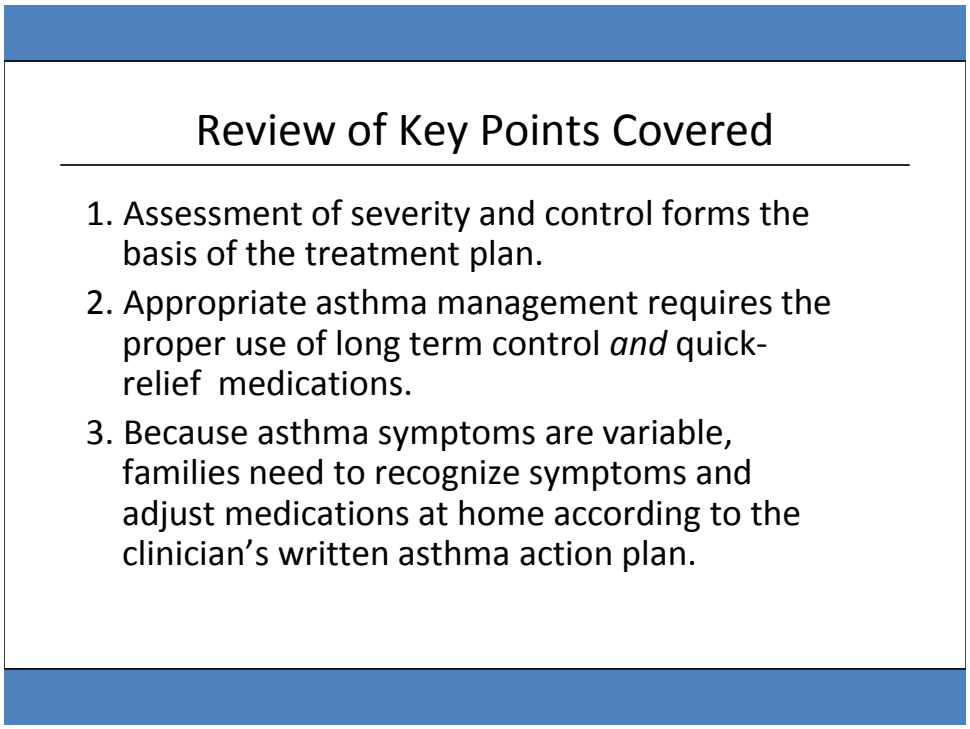
Powell, H. & Gibson, P. G. (2003). Options for self-management education for adults with asthma. *Cochrane Database of Systematic Reviews (Online), (1)*(1).



Slide 36

ADDITIONAL COMMENTS

- Here are two versions of one example.
- This treatment plan is popular because the simple analogy (traffic light) is easy to understand.
- Directions are clear.
- There are other completed examples in your binder.


Review of Key Points Covered
1. Assessment of severity and control forms the basis of the treatment plan.
2. Appropriate asthma management requires the proper use of long term control *and* quick-relief medications.
3. Because asthma symptoms are variable, families need to recognize symptoms and adjust medications at home according to the clinician's written asthma action plan.

Slide 37

WRAP UP – *ASTHMA SPECIALIST*

ADDITIONAL COMMENTS

SUGGESTED SCRIPT

These plans are designed for the majority of patients. We'll have a chance to discuss specific cases next time at our next session.

WRAP UP – *PRIMARY CARE PROVIDER*

SUGGESTED SCRIPT

Thank you *(Asthma Specialist's Name).* We will now take a short break.

(Behavioral Scientist's/Health Educator's Name) will now present a slide show and video on communication strategies.

Session 1, Segment 2

Tips for Behavioral Scientists/Health Educators

THE MAIN POINTS TO CONVEY IN THIS SEGMENT ARE:

Patient non-adherence to clinician recommendations is a significant problem for all providers.

Ten simple communication strategies can significantly improve the interaction with the patient. A list of these strategies is available in the communication section of the participant binders.

Good communication can increase patient knowledge, satisfaction, and compliance.

Using these strategies does not take a lot of extra time. In fact, it can save time.

Clinicians may be less interested in this segment or may initially believe it is irrelevant to their practice. Evaluation of the program (N.M. Clark et al. *Pediatrics* Vol 101, No 5, page 831-836, 5 May, 1998; MD Cabana et al. *Pediatrics* Vol 117 No 6, pages 2149-57; N. Clark et al. Long-term outcomes of physician peer teaching. 2008 *Clinical Pediatrics* 47(9), 883-90) showed that change in patients' health status and health care use only occurred with both effective medicine and health education. Further, good communication took no more time in the patient visit.

REMEMBER

Most clinicians think they are good communicators, but studies show that most patients do not agree.

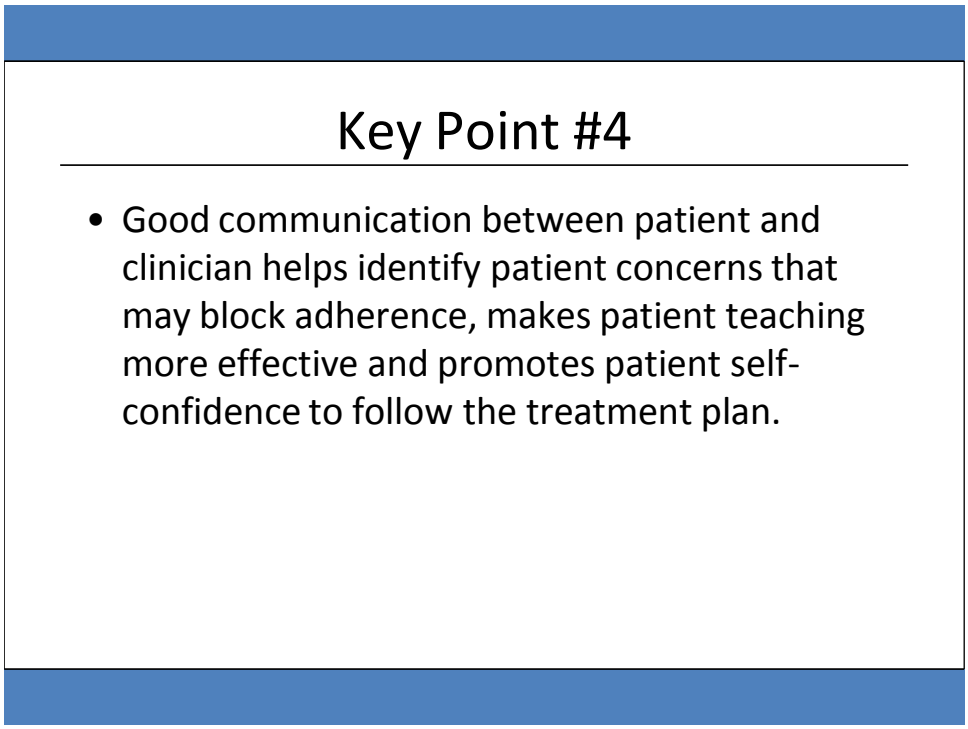
Acknowledge that most clinicians probably already employ some of the communication strategies. Encourage them to become more aware of their interactions with patients, or to try out some strategies that they do not already use. Encourage them to use the protocols you will provide to monitor their own communication skills in the time between sessions.

Some clinicians may have different personal styles than that of the clinician in the video. Reinforce that the strategies can be adapted to fit individual styles of communicating and in light of the patient's social experience.

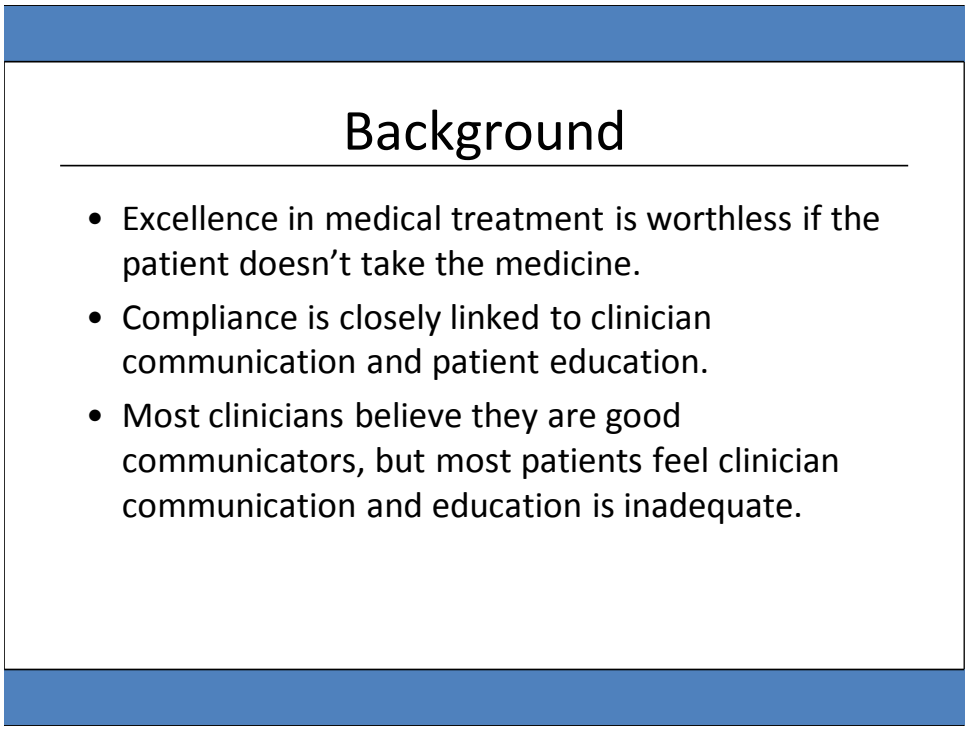
This segment should be interactive. The instructor should model the strategies recommended by using them during the discussion – ask open-ended questions, show non-verbally that the speaker is attentive to physician responses, give verbal encouragement, and so on.

Communication Strategies

SLIDE PRESENTATION



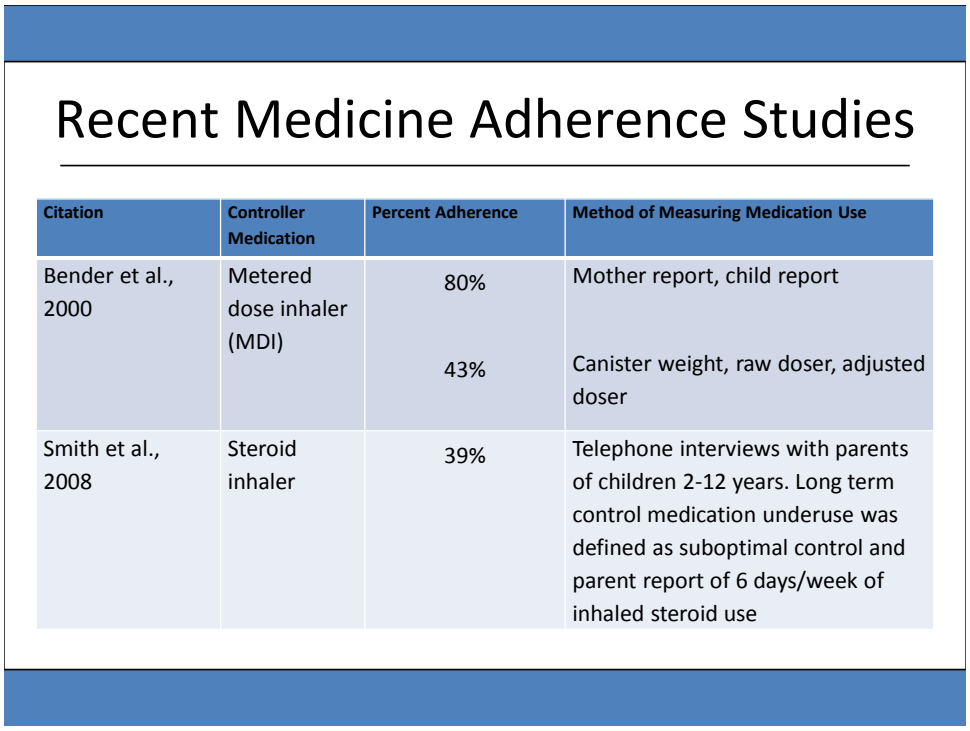
Slide 1



Slide 2

ADDITIONAL COMMENTS

- First, a little background...
- Clinician communication and patient education are central to a patient's compliance with the clinician's recommendations.



Slide 3

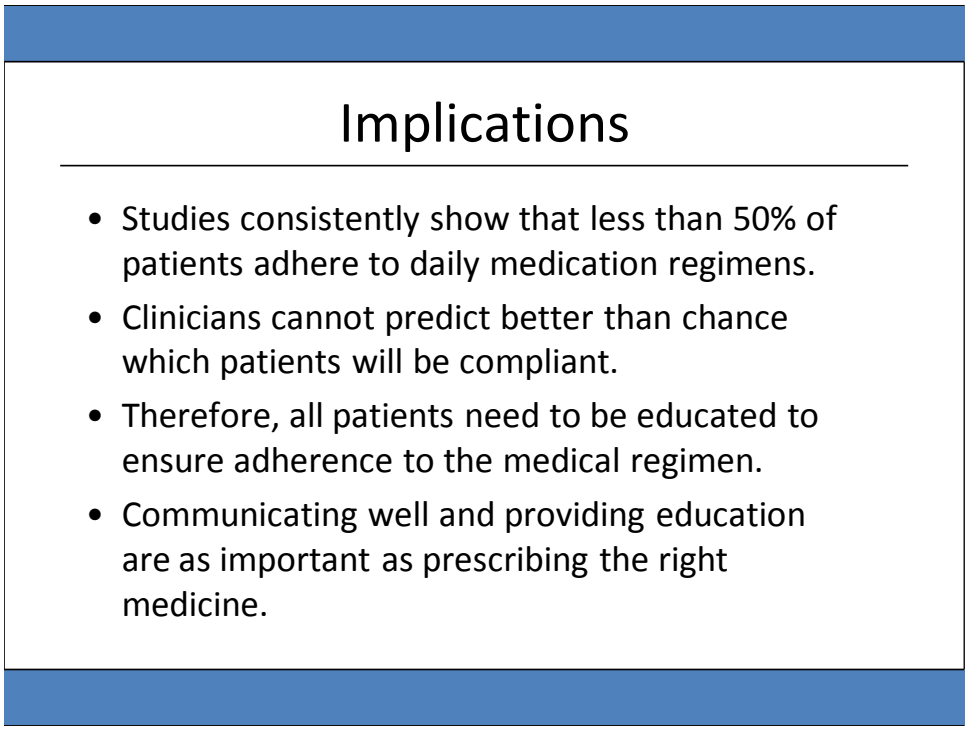
ADDITIONAL COMMENTS

- This slide shows some recent studies demonstrating poor compliance in asthma.
- The first is a study by Bender et al.
- The second is a study by Smith et al.
- Both studies show adherence is 50% and lower than what self-reported measures portray.
- Adherence is bad among all patients.

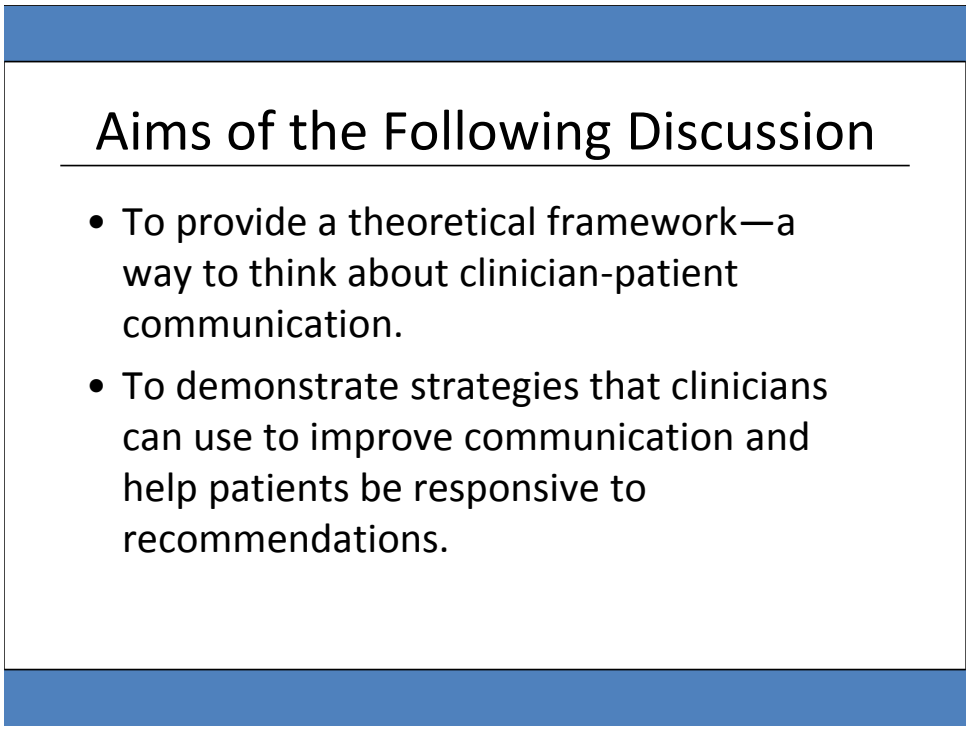
***References*:**

Bender et al. (2000). Measurement of children's asthma medication adherence by self-report, mother report, canister weight, and Doser CT. *Annals of Allergy, Asthma, and Immunology*. 85: 416-421.

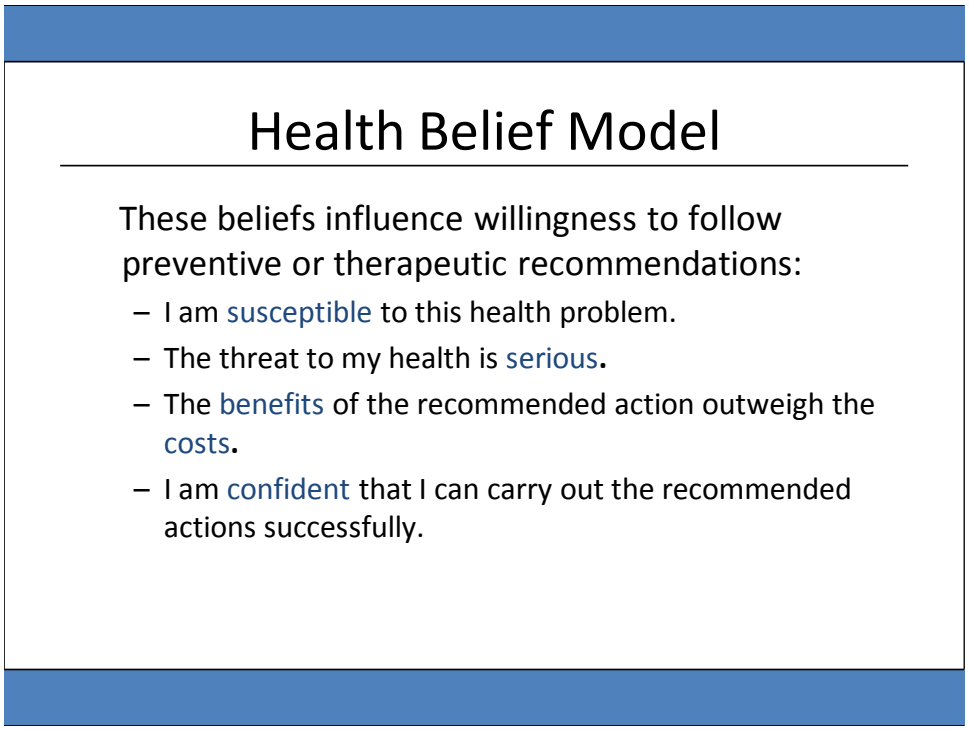
Smith et al. (2008). Modifiable Risk Factors for Suboptimal Control and Controller Medication Underuse Among Children With Asthma. *American Academy of Pediatrics*.122:760-76.


Implications
• Studies consistently show that less than 50% of patients adhere to daily medication regimens.
• Clinicians cannot predict better than chance which patients will be compliant.
• Therefore, all patients need to be educated to ensure adherence to the medical regimen.
• Communicating well and providing education are as important as prescribing the right medicine.

Slide 4


Aims of the Following Discussion
• To provide a theoretical framework—a way to think about clinician-patient communication.
• To demonstrate strategies that clinicians can use to improve communication and help patients be responsive to recommendations.

Slide 5



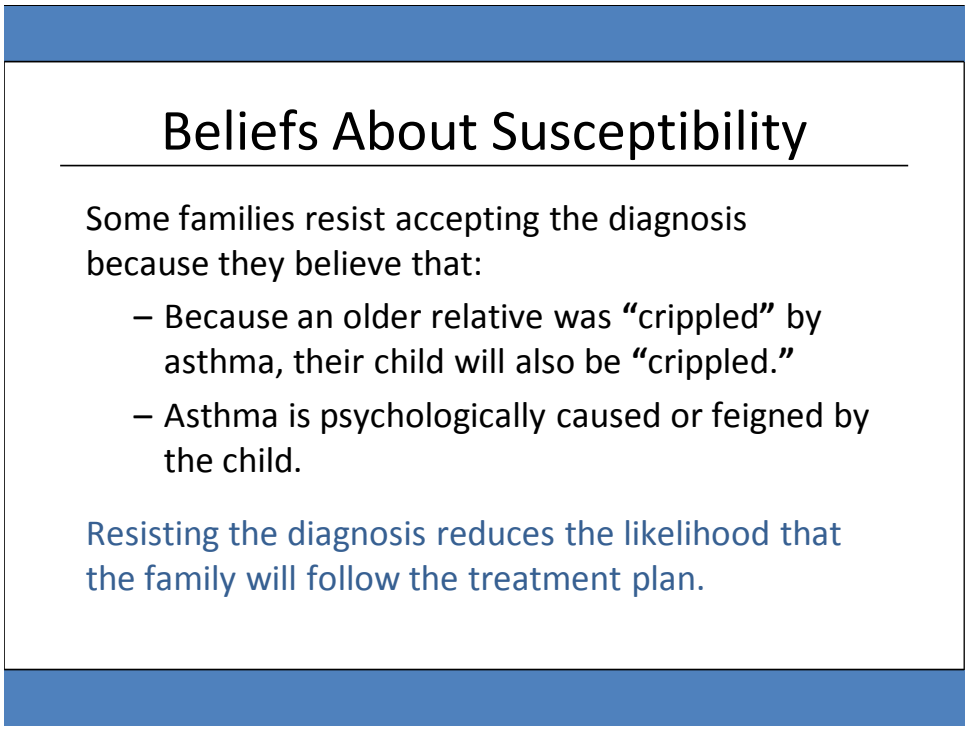
Slide 6

ADDITIONAL COMMENTS

- I'd like to introduce the Health Belief Model. Numerous studies have shown that these beliefs influence willingness to follow preventive or therapeutic recommendations.

Reference:

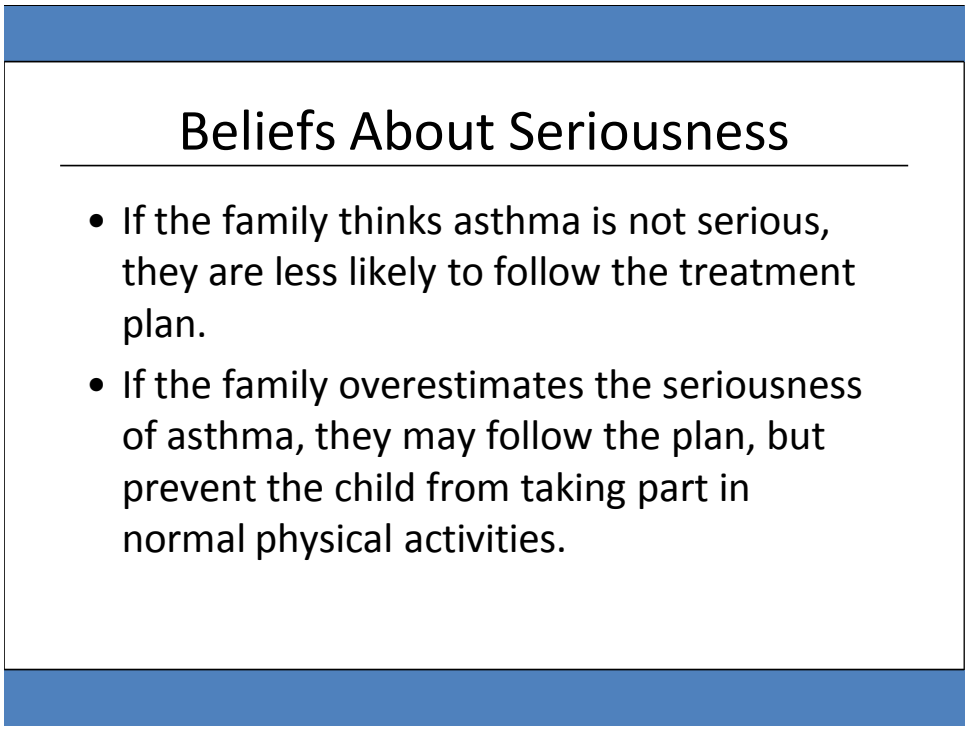
Glanz K., Rimer B., & Lewis F.M. (Eds.). (2002). *Health Behavior and Health Education Theory, Research, and Practice.* San Francisco, CA: Jossey-Bass.



Slide 7

ADDITIONAL COMMENTS

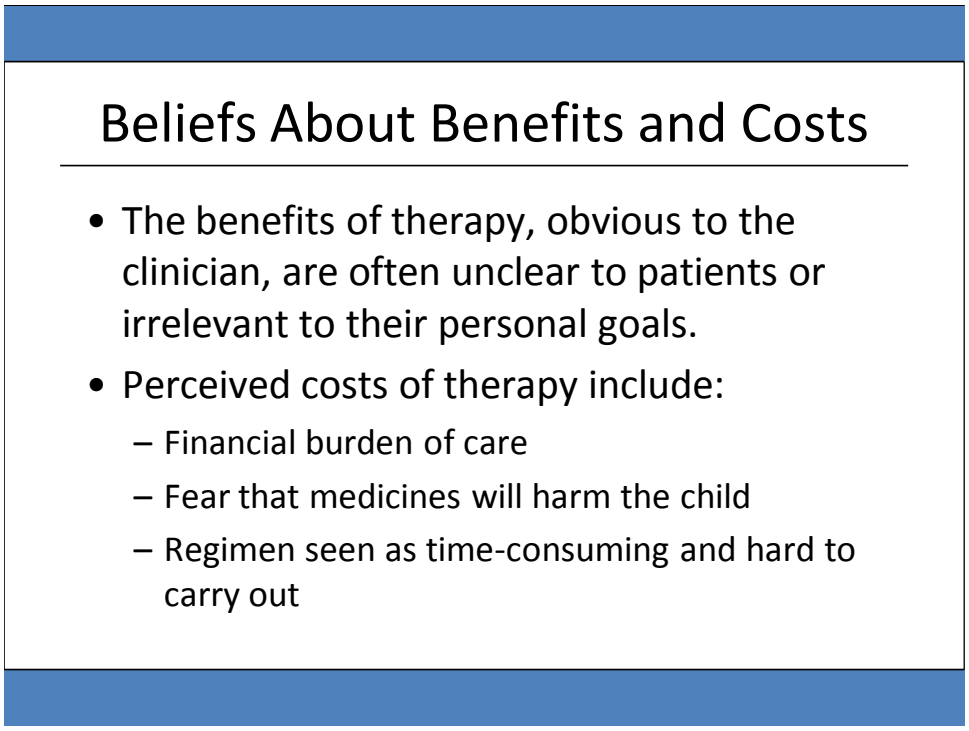
♦ These susceptibility beliefs are sometimes the main concern when patients come to see the clinicians, and discussion with the clinician can help dispel them.



Slide 8

ADDITIONAL COMMENTS

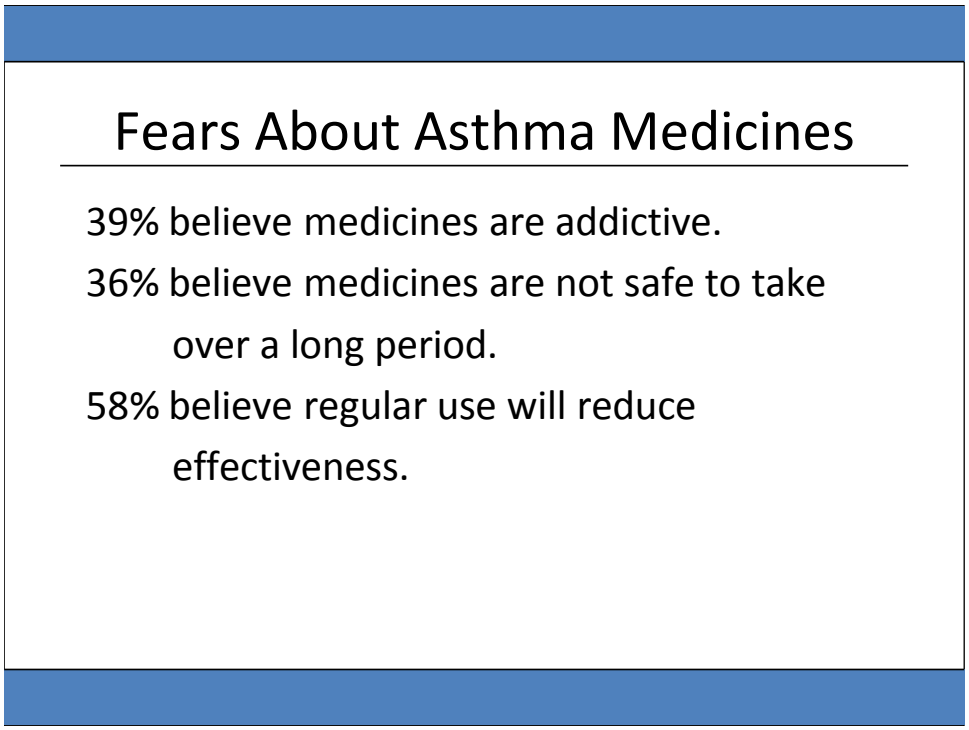
- Families need to learn that asthma is a serious disease, and by following an appropriate treatment plan, the child can be fully active.



Slide 9

ADDITIONAL COMMENTS

- The benefits of the therapy can be explicitly tied to the patient's personal goals, that is, to play basketball, to sleep through the night, and so on. In this way the "costs" of following the therapeutic plan are reduced and the physician's recommendations are seen as a way to reach one's personal goals.



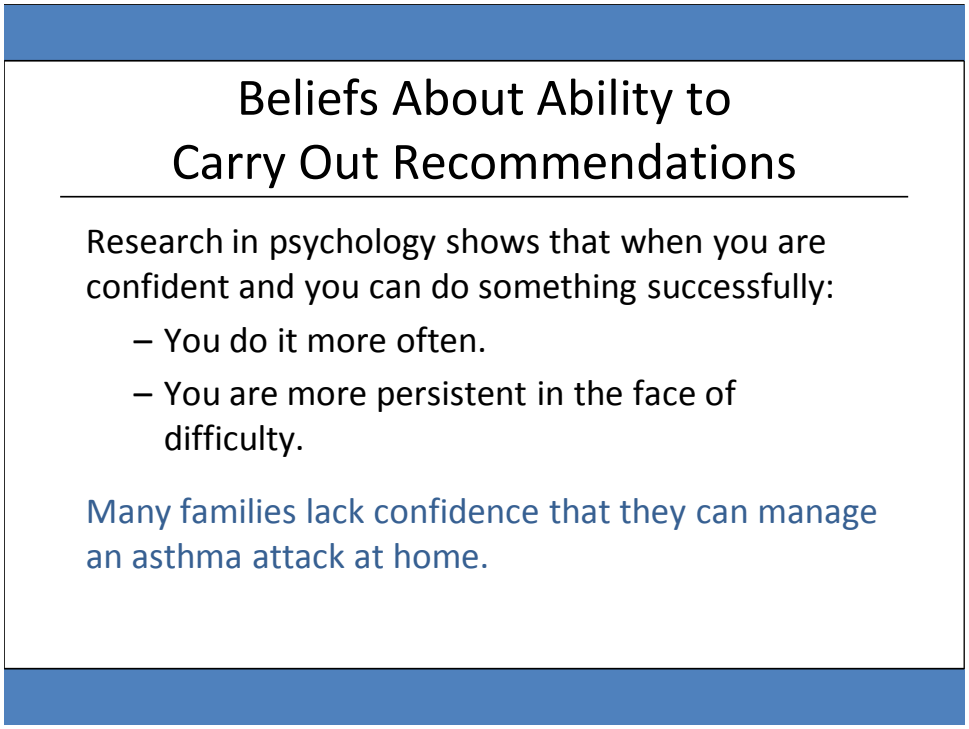
Slide 10

ADDITIONAL COMMENTS

- Fears about asthma medicines are an example of a perceived cost of therapy that blocks compliance.
- These figures are based on research conducted in a study of 445 parents of children with asthma.
- If parents hold these beliefs, it is unlikely they will follow the treatment plan.

Reference:

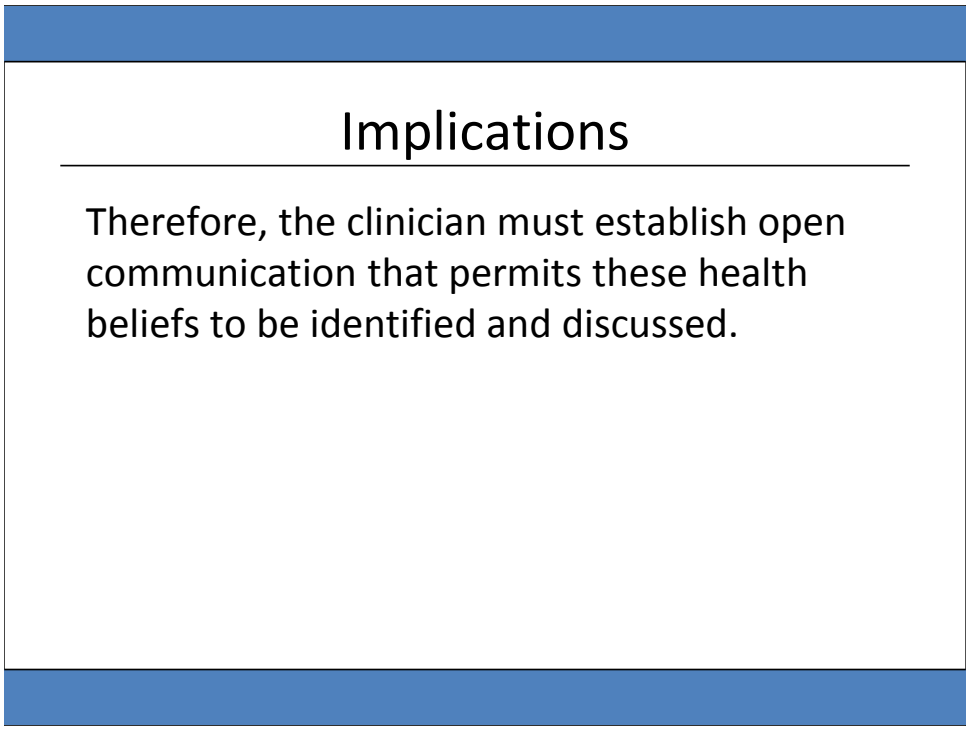
Wasilewski, Y., Clark, N. M., Evans, D., Levison, M. J., Levin, B., & Mellins, R. B. (1996). Factors associated with emergency department visits by children with asthma: Implications for health education. *American Journal of Public Health, 86*(10), 1410-1415.



Slide 11

ADDITIONAL COMMENTS

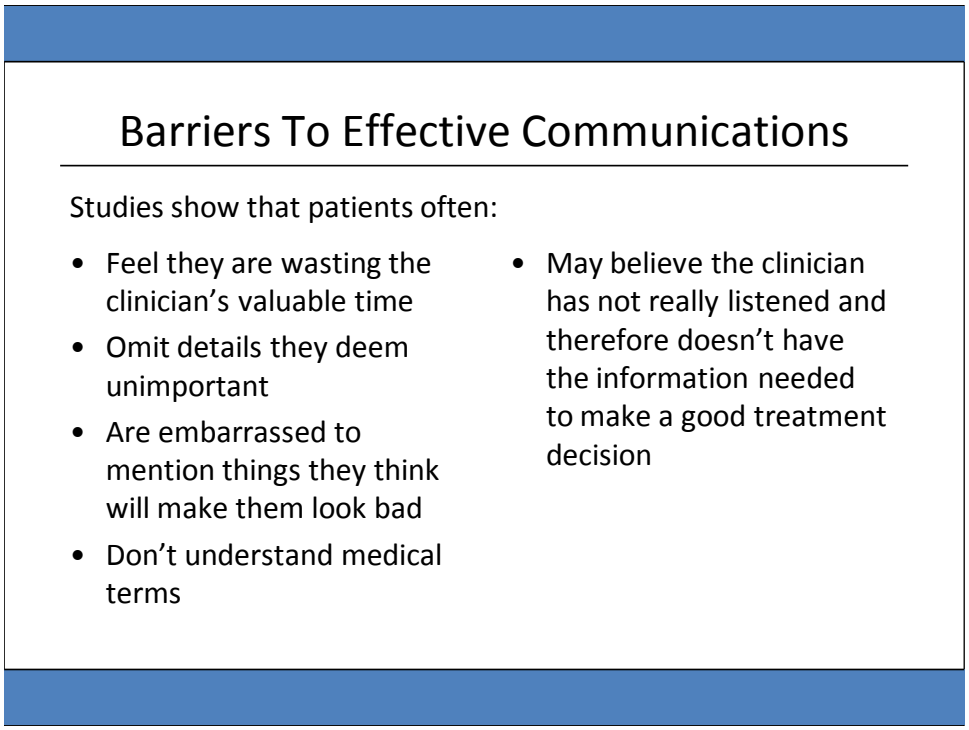
- For example, many families go immediately to the emergency department even for mild asthma episodes instead of beginning appropriate treatment at home.
- Explicit efforts to build patient confidence for self-management are central to asthma control.
- When the physician acts as a sympathetic, encouraging coach, it helps patients gain confidence that they can manage an asthma attack at home.



Slide 12

ADDITIONAL COMMENTS

- Open communication is important, but there are often barriers to effective communication during the office visit.
- Families are often reluctant to bring up their beliefs or concerns; it is important to identify them so they can be dealt with.



Slide 13

ADDITIONAL COMMENTS

- Now we'll show you a video for improving effective communication with patients.

- You may note that the office visit in the video is rather lengthy. We realize this is not likely the reality in your practice; however, this vignette is used to portray all of the communication strategies. You will probably only be able to practice a few of the strategies in each of your office visits.

References:

Bigby, J.A. (2006). Navigating cross-cultural communication. In T.E. King, Jr. & M.B. Wheeler (Eds.), *Medical management of vulnerable and underserved patients: principles, practice, and population* (pp. 99-100). McGraw-Hill Companies, Inc.

Collins, K.S. et al. (2002). "Diverse Communities, Common Concerns: Assessing Health Care Quality for Minority Americans." *The Commonwealth Fund*. Retrieved from http://www.commonwealthfund.org/Content/Publications/ Fund-Reports/2002/Mar/Diverse-Communities--Common-Concerns--Assessing-Health-Care-Quality-for-Minority-Americans.aspx

Video Demonstration

COMMUNICATION STRATEGIES

SUGGESTED SCRIPT – *BEHAVIORAL SCIENTIST/HEALTH EDUCATOR*

Several communication strategies have been identified that clinicians can use to reduce the barriers to effective interaction and enable them to be perceived as a "sympathetic coach." Using these strategies can make the interaction go more easily, speed up the process, and in the long run save both time and cost.

These techniques are illustrated in a video we are going to screen. It is about 15 minutes long and is an efficient way to highlight the most effective strategies. It may be a review of material for those in the audience who already have communication training, or who have learned the hard way. For some, the ideas may be reasonably new. The video doesn't depict everything that takes place in a visit. The main purpose is to show the communication strategies in action.

Your personal style may be different from that of the clinician in the video. Of course, you will want to adapt the strategies to fit your own individual style.

SHOW VIDEO PART 1: COMMUNICATION STRATEGIES

Discuss video with goal of getting participants to share their experience. The questions serve as triggers to discussion-they need not all be asked.

Complete slide presentation slides 14 through 21

VIDEO DISCUSSION QUESTIONS

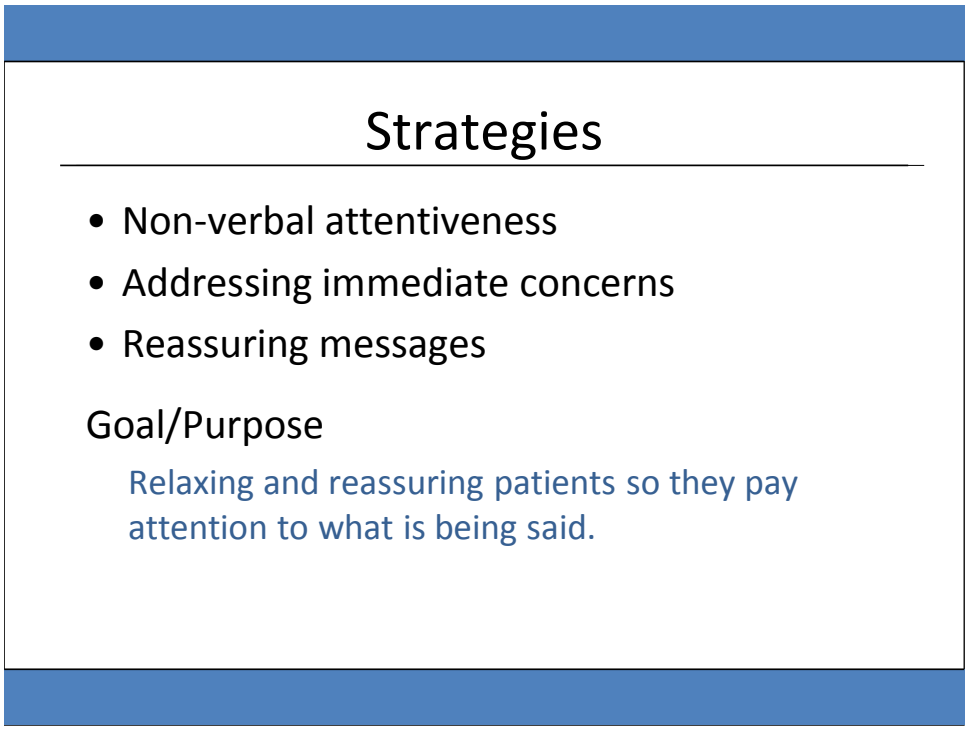
1. What are your reactions to how the clinician handled Michael's concerns?

2. Which do you feel uncomfortable using?

3. Which of these strategies are easiest to use given a very constrained time frame for seeing the patient?

4. Which strategies are effective or not effective? What makes you think they are effective (or not effective)?

5. [For each strategy]: do you use this strategy? Why? Why not?



Slide 14

ADDITIONAL COMMENTS

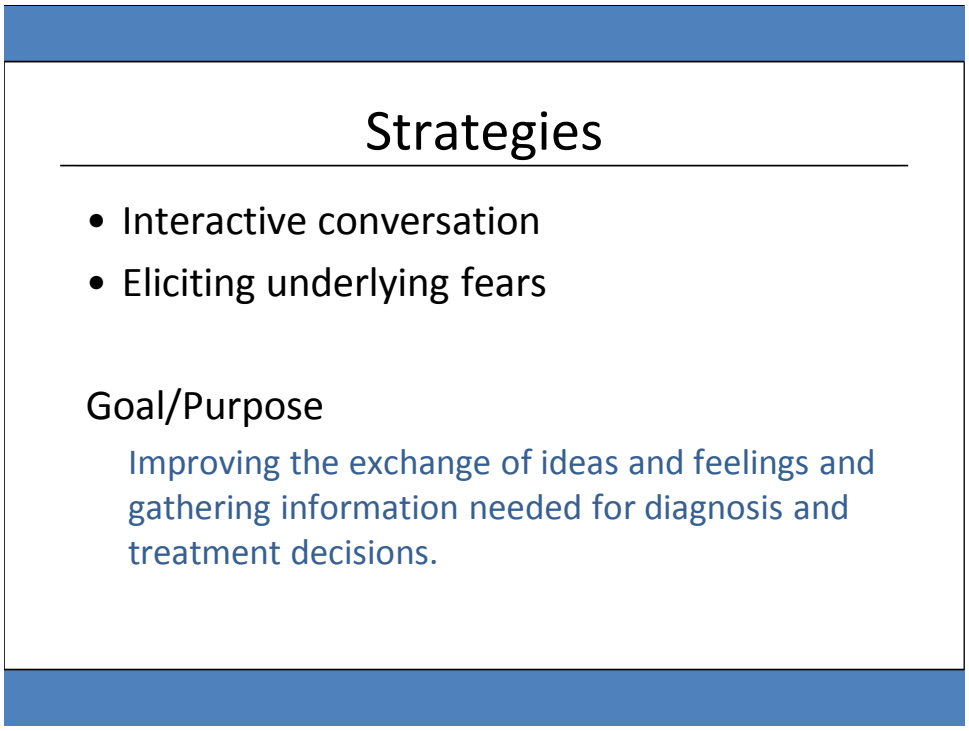
- Now let's review the purpose of each strategy shown in the videotape. Let me emphasize that these strategies have been evaluated as part of two large clinical trials with pediatricians.

- When using an electronic medical record system (EMR), be sure to stop, pause, and look at the family. It is important to share what you are doing with the family when using EMR during the visit. Failing to share information may raise suspicions.

References:

Shachak, A. & Reis, S. (2009). The impact of electronic medical records on patient-doctor communication during consultation: A narrative literature review. *Journal of Evaluation in Clinical Practice, 15*(4), 641-649.

O'Malley, A. S., Cohen, G. R., & Grossman, J. M. (2010). Electronic medical records and communication with patients and other clinicians: Are we talking less? *Issue Brief (Center for Studying Health System Change), (131)*(131), 1-4.



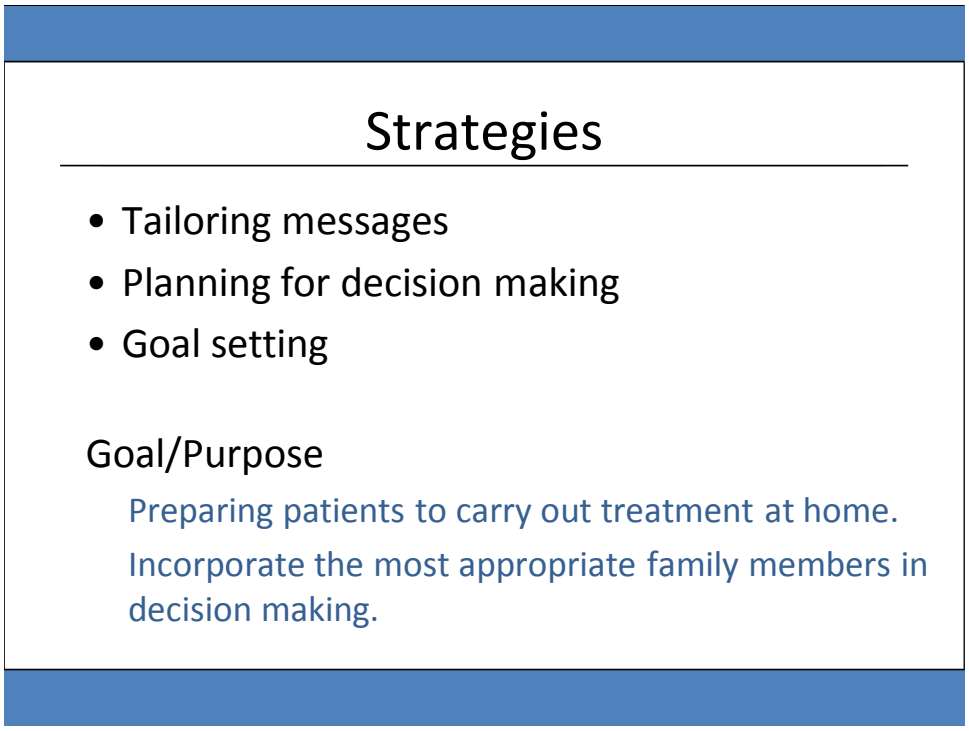
Slide 15

References:

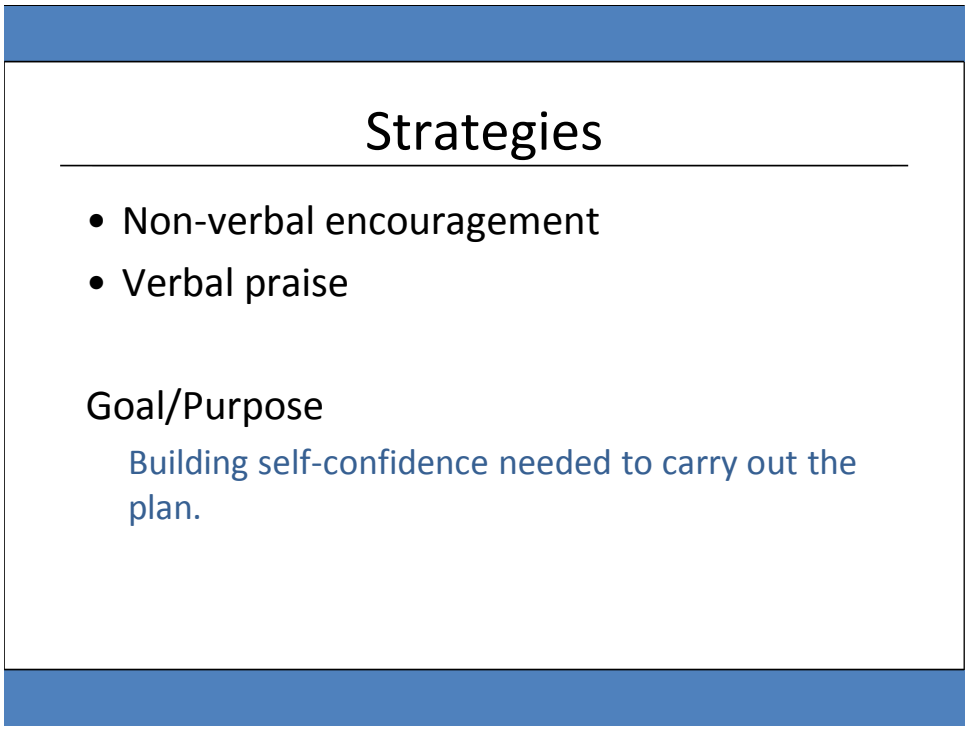
Cabana, M. D., Slish, K. K., Evans, D., Mellins, R. B., Brown, R. W., Lin, X., et al. (2006). Impact of physician asthma care education on patient outcomes. *Pediatrics, 117*(6), 2149-2157.

Clark, N. M., Cabana, M., Kaciroti, N., Gong, M., & Sleeman, K. (2008). Long-term outcomes of physician peer teaching. *Clinical Pediatrics, 47*(9), 883-890.

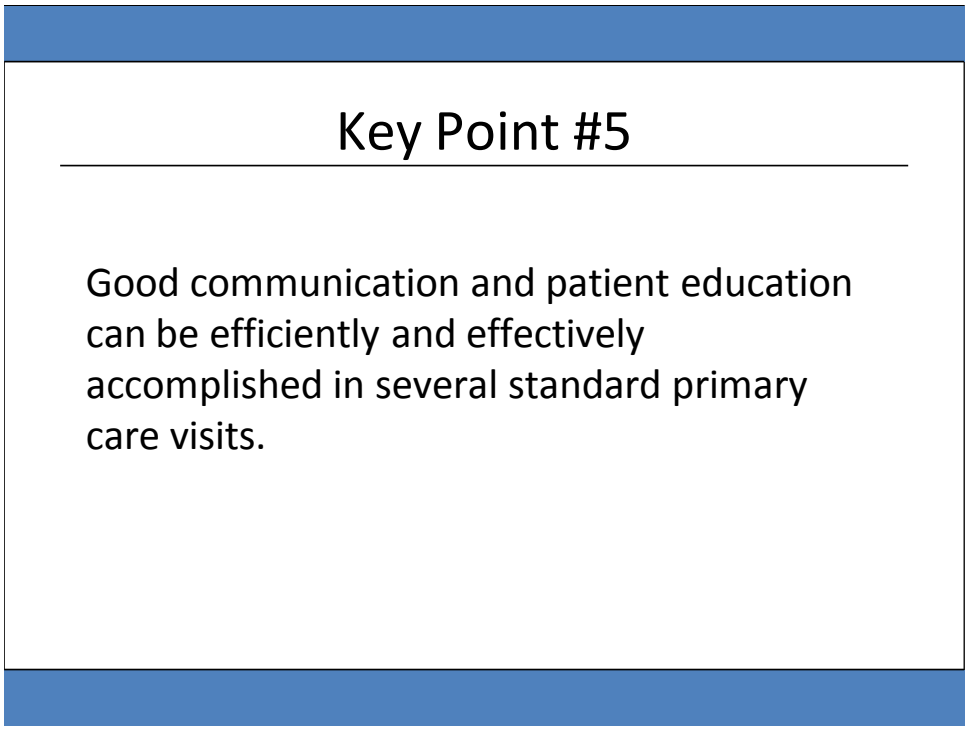
Clark, N. M., Gong, M., Schork, M. A., Evans, D., Roloff, D., Hurwitz, M., et al. (1998). Impact of education for physicians on patient outcomes. *Pediatrics, 101*(5), 831-836.


Strategies
• Tailoring messages
• Planning for decision making
• Goal setting
Goal/Purpose
Preparing patients to carry out treatment at home.
Incorporate the most appropriate family members in decision making.

Slide 16


Strategies
• Non-verbal encouragement
• Verbal praise
Goal/Purpose
Building self-confidence needed to carry out the plan.

Slide 17



Slide 18

ADDITIONAL COMMENTS

- Three visits can usually enable sufficient tailoring of the initial therapy and delivery of educational messages.

Slide 19

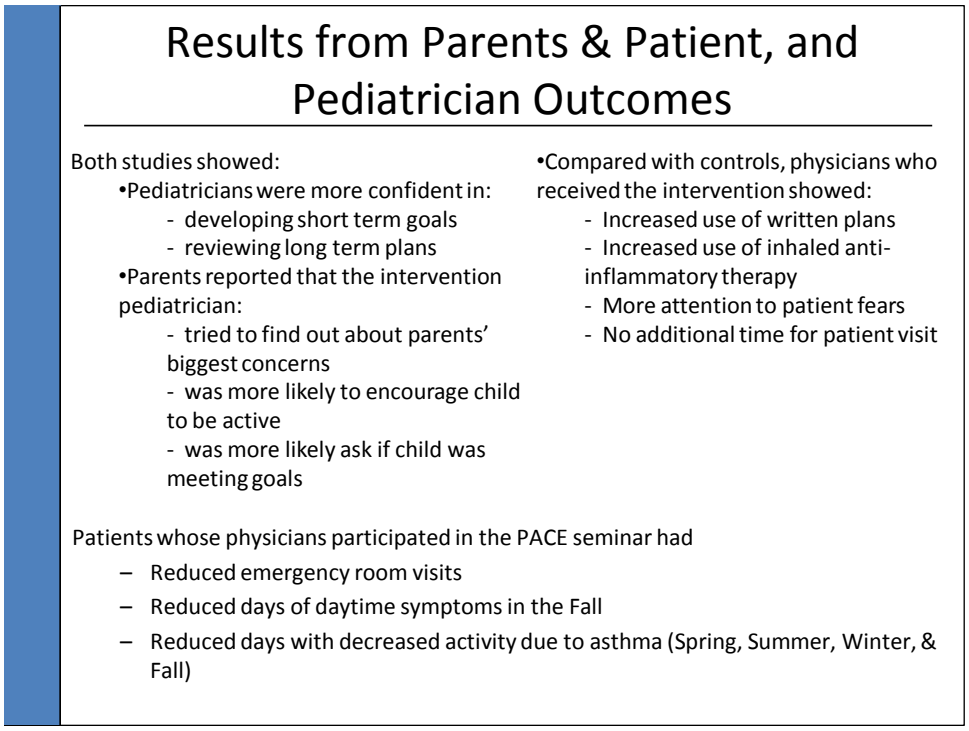
ADDITIONAL COMMENTS

- To see if this worked, Clark et al. conducted two controlled trials...

References:

Clark, N. M., Gong, M., Schork, M. A., Evans, D., Roloff, D., Hurwitz, M., et al. (1998). Impact of education for physicians on patient outcomes. *Pediatrics, 101*(5), 831-836.

Cabana, M. D., Slish, K. K., Evans, D., Mellins, R. B., Brown, R. W., Lin, X., et al. (2006). Impact of physician asthma care education on patient outcomes. *Pediatrics, 117*(6), 2149-2157.

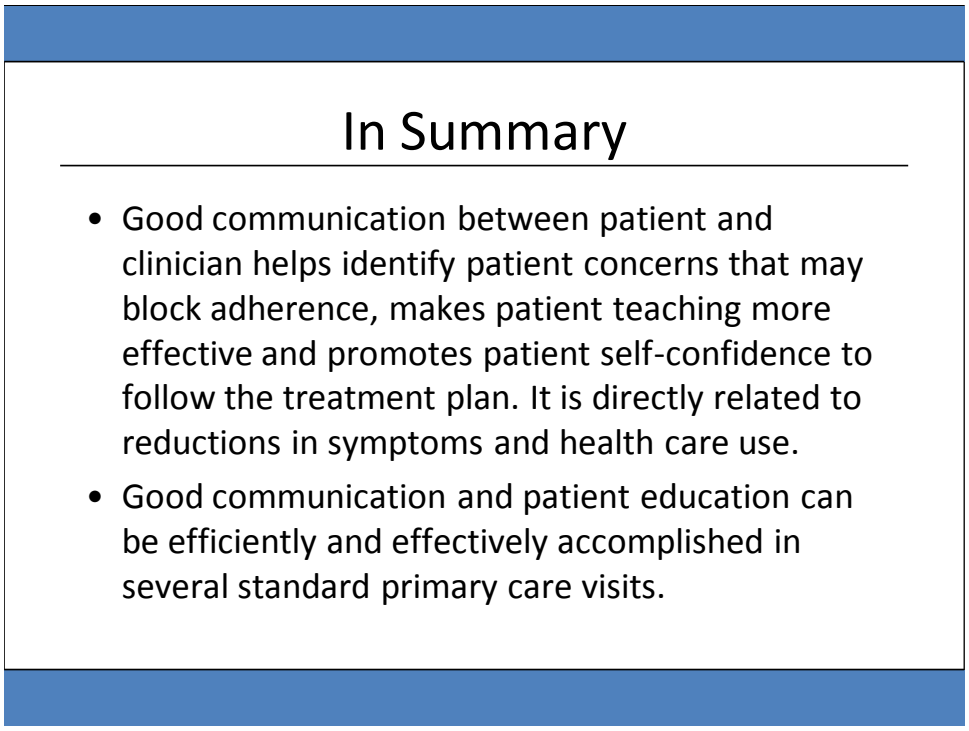


Slide 20

ADDITIONAL COMMENTS

- **NO ADDITIONAL TIME FOR PATIENT VISIT:** This is important as some clinicians think good communication takes more time. These studies showed this is not the case.

- The evidence demonstrates that there is no question that good communication can change patient outcomes.


In Summary
• Good communication between patient and clinician helps identify patient concerns that may block adherence, makes patient teaching more effective and promotes patient self-confidence to follow the treatment plan. It is directly related to reductions in symptoms and health care use.
• Good communication and patient education can be efficiently and effectively accomplished in several standard primary care visits.

Slide 21

Session 1, Segment 3

Tips for Instructors

THE MAIN POINTS TO CONVEY IN THIS SEGMENT ARE:

1. There is a basic core of information that the patient needs in order to manage asthma effectively.
2. It is possible to convey these messages within the time constraints of a busy practice.
3. Using images and metaphors can increase the patient's understanding of medical concepts.

Clinicians may protest that they do not have time for the kind of comprehensive patient education depicted in the video. It is probably not realistic to expect clinicians to cover everything in one visit. Stress that the messages can be given to patients over a series of visits, and if they are incorporated into the visit, need not take up an excessive amount of time. Also, remind them that patient education up-front can lead to less investment of time in the long run because patients will be better able to manage on their own and follow-up visits will be much easier.

REMEMBER to model the communication strategies (such as open-ended questions and interactive conversation)

Give participants positive reinforcement if they report using the strategies. Ask them to describe their experience. Ask if anyone else has tried the same strategy.

NOTE: There are pauses after each of the three sections of the video to enable you to stop the tape and discuss the points made.

Patient Health Education

INTRODUCTION AND VIDEO PRESENTATION

 **SUGGESTED SCRIPT –** *PRIMARY CARE PHYSICIAN/ASTHMA SPECIALIST*

Now we are going to focus on patient education: the key messages that you need to convey to the family so they can manage asthma effectively at home. A list of these key asthma messages are available in the communication section in your binder.

 **SUGGESTED SCRIPT –** *BEHAVIORAL SCIENTIST/HEALTH EDUCATOR*

In order to effectively manage asthma at home, patients must accept and act on the asthma messages you give them. If you haven't heard from some of your asthma patients in a long time, or know of some who have been experiencing symptoms, a good argument can be made for contacting the families and scheduling a series of visits to get them on track. You can begin by first ensuring they are on the right regimen, and second by providing the needed basic education. As we have said, this up-front investment is well worth it down the road. Asthma education has been shown to reduce the need for emergency visits and hospitalizations among children with a history of such health care use, and to help children do better in school.

To start our discussion, we are going to watch a second video. This video presentation outlines the basic messages the patient and family need to receive in order to manage asthma well at home. The video does not depict the entire proceedings of each visit (that is, the physical exam). Rather, it provides an overview of the messages the families need.

The clinician in the video spreads the educational messages over three visits so that he can provide sufficient information about each topic. In actual practice, of course, the messages don't have to be spread over three visits—they may take more or less time—and they do not have to be delivered in the order presented in the video. It is best to use your judgment about the family's need or interest to determine the order of the messages.

SUGGESTED SCRIPT – *HEALTH EDUCATOR/ASTHMA SPECIALIST*

We will pause in between each of the three sections of this video to discuss the messages the clinician has conveyed. At the end of the third segment of the video, we'll discuss the feasibility of this kind of patient education and the ways that you have found you can be most effective in educating your patients.

All of the messages in the video are on a handout that you will get at the end of the session, so you do not need to take notes.

In this visit, Dr. Esser focused on teaching the family about:

- What happens during an asthma attack
- How medicines work
- How to take the medicines
- How to respond to changes in asthma severity

Instructions

- Show Video Part 2, Section 1.
- Pause video after Section 1 for discussion.
- Discuss Section 1 briefly.

Discussion Question:

Now each of you has a lot of experience delivering asthma messages.

1. Are there any ways you have found to deliver these messages that are effective or help your patients understand asthma or learn what they need?

SUGGESTED SCRIPT – *HEALTH EDUCATOR/ASTHMA SPECIALIST*

In this visit, Dr. Esser focused on teaching the family about:

- Safety of medicines
- Goals of therapy
- Criteria of successful treatment

INSTRUCTIONS

- Show video Part 2 Section 2
- Pause video after Section 2 for discussion
- Discuss Section 2 briefly

DISCUSSION QUESTIONS FOR VIDEO PART 2 SECTION 2:

1. Are there ways you have found to deliver these messages that are effective or help your patients understand asthma or learn what they need?

2. Are these messages more or less difficult to deliver with particular groups of patients?

INSTRUCTIONS

- Show video Part 2, Section 3
- Pause video after Section 3 for discussion
- Discuss how education depicted in video can be adapted to fit clinician's own practices.

In this visit, Dr. Esser focused on teaching the family about:

- Managing asthma at school
- Identifying and avoiding triggers
- Referral to further education

DISCUSSION QUESTIONS FOR VIDEO PART 2 SECTION 3:

1. What ways do you use to communicate about these topics to your patients?

2. How feasible is it to do this kind of comprehensive education with your patients?

3. What ways have you found to do this effectively in your settings?

Session 1 Wrap-Up

SUGGESTED SCRIPT – *PRIMARY CARE PROVIDER/ASTHMA SPECIALIST*

Most professionals can improve their communication skills whether in medicine, law, business, or other fields. An effective way to do this is through self-observation and evaluation. The communication self-rating scale is a kind of communication crib sheet that outlines the strategies demonstrated in the video. A copy of this is located in the communication section of your binder. Reviewing the form before seeing a family and completing it after a visit can alert you to areas of communication behavior where you may want to place more emphasis when interacting with a patient and parent. Using the scale initially for several weeks while you are consciously trying to change your communication style is very helpful. Thereafter, using it periodically to check yourself can help you maintain your use of the strategies.

We'll ask you to do <u>four things</u> to prepare for next week's seminar:

1. Write any questions related to clinical or educational aspects of asthma on these cards. Give them to us today or at the beginning of next week's session. We will do our best to address them.

2. Bring to the discussion next week an asthma case from your practice that you want to continue to manage—not one you'd refer to a specialist. We will ask some or all of you to describe a case so the group can analyze it.

3. We would like you to use one of the communication strategies we've talked about today with your patients during the coming week. You might want to pick a skill that you don't currently use extensively. You can use it with asthma patients and other patients, too. We will review your experience when we meet next week.

4. Use the self-rating scale in your binder to assess your behavior when interacting with families during asthma consultations.

SUGGESTED SCRIPT – *PRIMARY CARE PHYSICIAN*

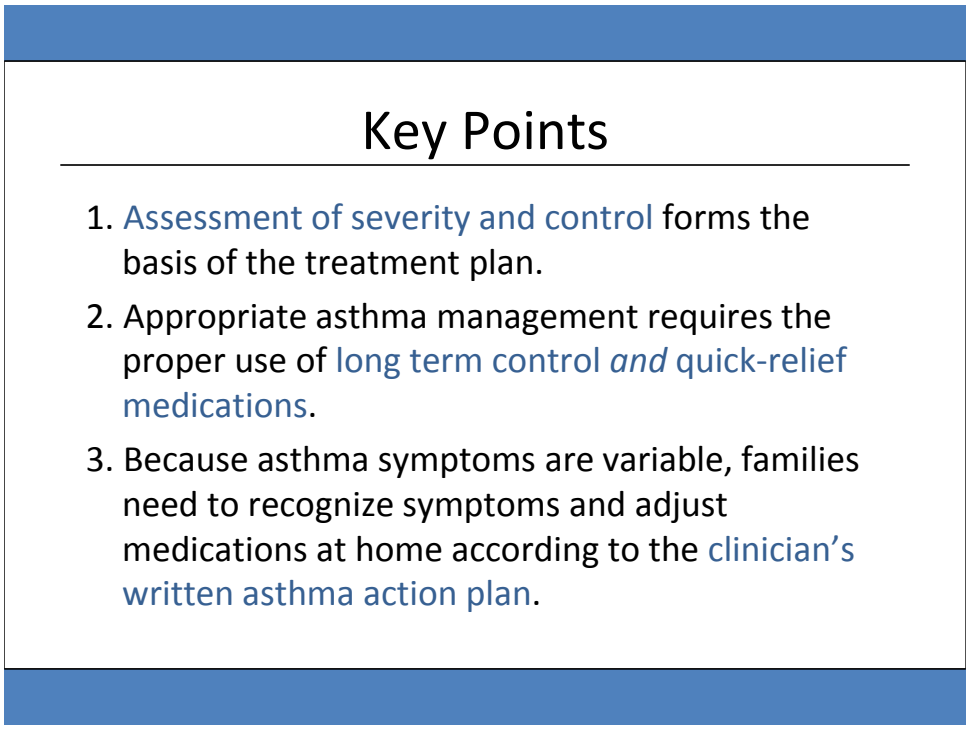
Before you leave, I have a few reminders:
1. Don't forget Part 2 of the PACE seminars is _____ at _____.
2. Remember that you must attend the entire Part 2 seminar as a prerequisite for your CME credits.
3. You won't want to miss this next seminar because we will be discussing more important aspects of asthma management.

Thanks for coming, see you next week!

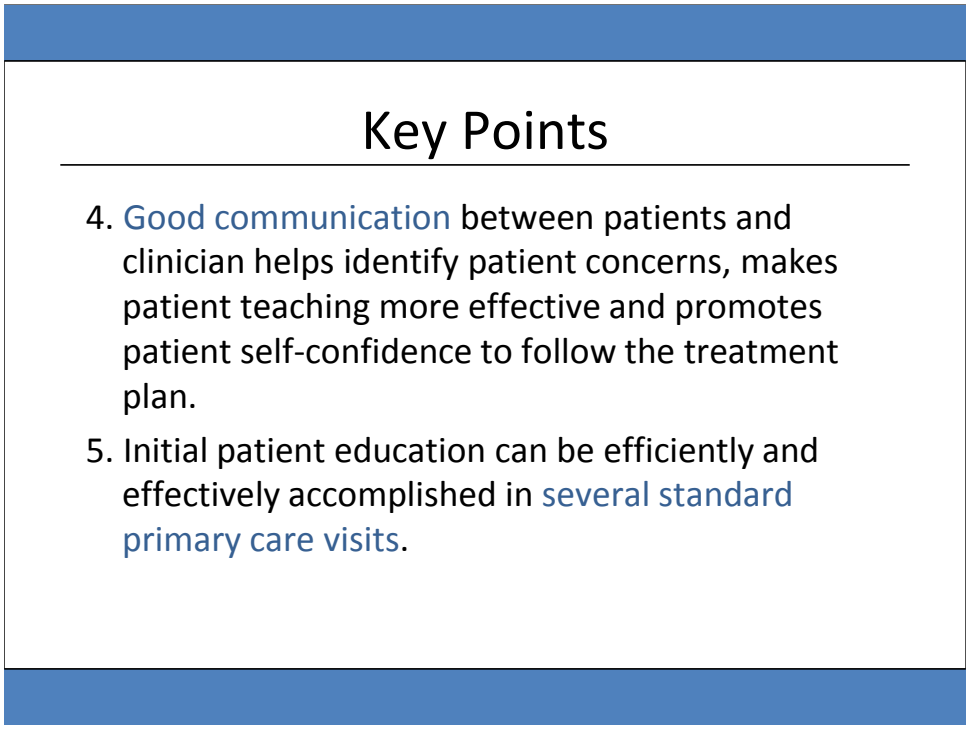
Session 2, Segment 4

SUGGESTED SCRIPT – *PRIMARY CARE PHYSICIAN/ASTHMA SPECIALIST*

Welcome back! Today we are going to focus on examples of working with asthma patients and documentation, coding, and reimbursement for asthma education. First, let's review the five key points again from last week and introduce the sixth point that we'll emphasize today:



Slide 1



Slide 2

ADDITIONAL COMMENTS

- Now, we'll turn the presentation over to *(Behavioral Scientist/Health Educator's Name)*

REVIEW OF COMMUNICATION SKILLS AND SELF-RATING SCALE

INSTRUCTIONS:
See Communication Skills and Self-Rating scale in Appendix 3.

SUGGESTED SCRIPT – *BEHAVIORAL SCIENTIST/HEALTH EDUCATOR*
Please turn to the Communication section in the binder in front of you. It has a list of the key messages we talked about last time. You can use this list, as well as the handout describing the messages in more detail to help you see if you have covered all the messages as you had planned for each visit.

Discussion Questions:

1. Did any of you try using one of the communication skills we talked about last time? How did it go? Anyone else?

Try to allow each person who tried one of the skills to say what he or she did.

2. What were your experiences using the self-rating scale?

SUGGESTED SCRIPT
It takes a combination of communication strategies and asthma messages to prepare the family to accept asthma and manage it effectively at home. All of these messages make an important contribution to the family's ability to control asthma and follow your treatment plan. And as you have said, it isn't really possible to deliver them all in one visit. We think this justifies scheduling a series of visits with patients who are having difficulty controlling asthma, or who you haven't seen for a while, to review their treatment plan and provide them with the teaching they need to control asthma.

Now let's turn the presentation over to *(Asthma Specialist's Name)* to look at a case of asthma from your own practice.

Session 2, Segment 5

Case Presentations

SUGGESTED SCRIPT – *ASTHMA SPECIALIST*

We discuss cases for two reasons:

- To help clinicians apply concepts in their own practice
- To identify and resolve complex situations

Let's discuss some cases that represent common challenges facing clinicians (that is, cases that are difficult to classify).

INSTRUCTIONS

- This segment requires preparation by the physician instructor. Each of the three cases should be reviewed and salient issues related to each identified to raise with participants in discussion.

- The behavioral scientist/health educator should contribute the psychosocial, educational aspects that the clinicians may overlook.

CASE STUDY 1
Severe, But Infrequent Asthma

During an office visit with a new patient, Mrs. Wallace tells you that every time her two-year-old daughter Jennifer has a cold, she has severe coughing and wheezing that lasts for two or three weeks**.** She says her child always goes to the doctor because she has a lingering "chest cough" and "bronchitis" symptoms. The antibiotics don't help; but albuterol does provide short-term relief. She has had approximately three or four such colds in the last year, and the most recent occurred a month ago. Jennifer does not have any symptoms now, but Mrs. Wallace is worried and asks you for help.

Discussion Questions:

1. What treatment plan would you recommend to Mrs. Wallace for Jennifer's asthma?

   Consider giving a long-term control medication throughout the "cold season." Start quick-relief medication at the earliest sign of a cold.

   The initiation of long-term control therapy should be considered in children who have had more than three episodes of wheezing in the past year that have lasted more than one day. All treatment should include an environmental assessment and appropriate follow-up. If the patient does not respond to treatment, consider the possibility of poor patient adherence, incorrect medication technique, or a co-morbid diagnosis. You may even consider referral to a specialist for allergy testing and consideration of other etiology/treatment.

2. What do you think would be the greatest challenge in getting Mrs. Wallace to follow the treatment plan?

   Mrs. Wallace is likely to be reluctant to use a daily long-term control medication when there are asymptomatic periods. Point out that the long duration of each exacerbation indicates the likelihood that the airways are chronically inflamed even when Jennifer seems well and therefore she needs a long-term control medication at least for a while. Also reinforce that these medications—that are generally well tolerated and safe for children at the recommended dosages—will help shorten the duration of the sick episodes.

CASE STUDY 2
Frequent, Mild Asthma

Tom Platt is six years old, and he coughs and wheezes several times a week. The symptoms occur when he runs or in rare instances when he is near a cat. The Platt family has no pets at home. Mrs. Platt has never had to take Tom to the emergency room, but she tries to keep him from running too much to prevent these symptoms.

Discussion Questions:

1. What treatment plan would you recommend to Mrs. Platt for Tom's asthma?

   This may be a case of exercise-induced asthma or moderate persistent asthma that is only obvious when Tom is active. Look for clues from both the parent and child in the description of symptoms. If you determine Tom is having daily wheezing, he should be treated with a long-term control medication. If you determine his asthma is solely exercise induced with specific activity, he should be treated appropriately.

   All treatment should include an environmental assessment and appropriate follow-up. If the patient does not respond to treatment, consider the possibility of poor patient adherence, incorrect medication technique, or a co-morbid diagnosis. You may consider referral to a specialist for allergy testing and consideration of other etiology/treatment.

2. What do you think would be the greatest challenge in getting the family to follow the treatment plan?

   Placing Tom on a daily long-term control medication when his symptoms are mild may be difficult for the family to accept. Further, convincing the family that restriction of his activity is not an acceptable treatment option may prove challenging—especially if the family's physical activity is already limited.

Session 2, Segment 6

Documentation, Coding, and Payment*

SUGGESTED SCRIPT – *PRIMARY CARE PROVIDER*

The purpose of this next segment is to teach you how to effectively document, code and bill for the excellent asthma counseling and education that you will provide. Our goal is to ensure that you receive appropriate payment for quality care. Most pediatric visits are for acute care and as a result, the documentation, coding and payment are more straightforward. For visits that are primarily focused on counseling and education, your approach towards these steps may be different.

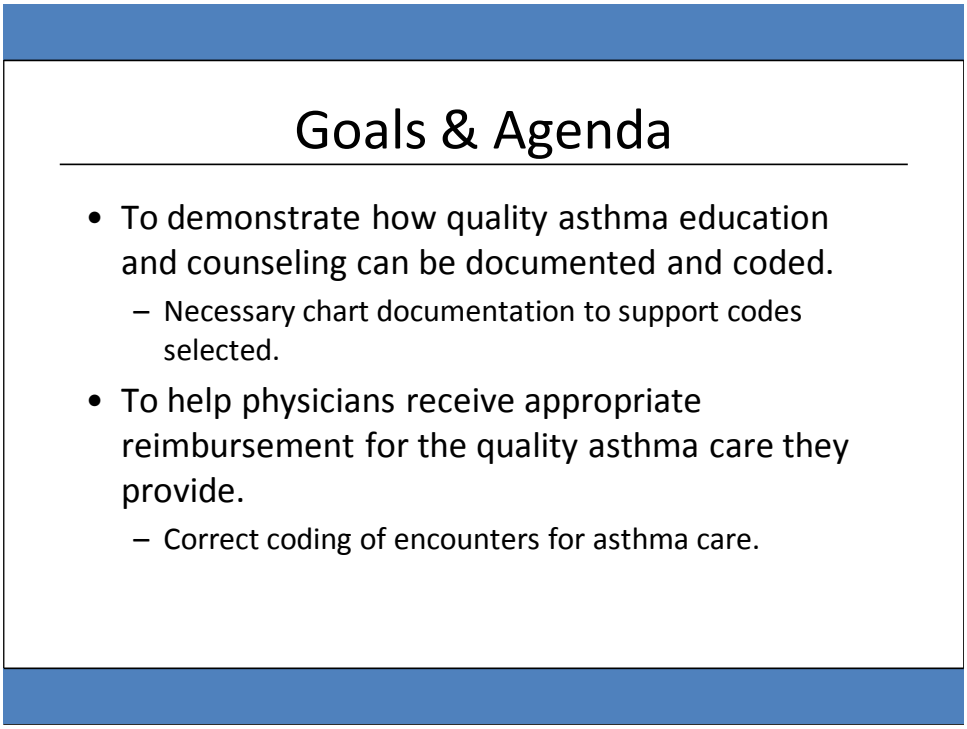
INSTRUCTIONS

This segment requires preparation by the physician instructor.

**Note: This section may be presented by a reimbursement specialist, if available.*

Documentation, Coding, and Payment

SLIDE PRESENTATION



Slide 1

ADDITIONAL COMMENTS

- Despite the time physicians invest for education and counseling, pediatricians tend to undercharge for services they provide due to poor documentation and coding. These topics are not a common component of pediatric residency curricula. Many physicians learn "on the job" or delegate this responsibility to office staff. However, under-coding leads to under-compensation and as a result, less revenue.

- On the other hand, over-coding can lead to overcharging for patient services, and result in fines or penalties from private or public payer coding audits.

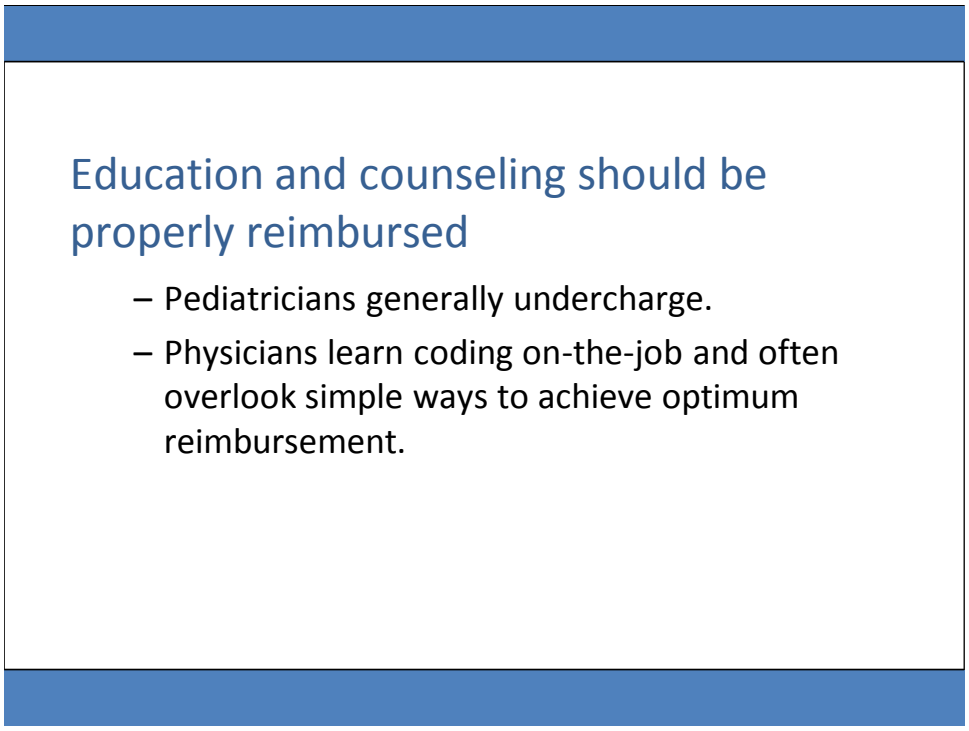
Reference:

Ng M & Lawless ST. (2010). What if pediatric residents could bill for their outpatient services. *Pediatrics, 108*(827), 34.

Video Presentation

SUGGESTED SCRIPT – *Reimbursement Specialist*

We are going to begin by watching a video. This video presentation is designed to instruct physicians working with children who have asthma (and their parents) to effectively bill and code in the delivery of asthma care. The video does not depict the entire proceedings of each visit (for example, the physical exam). Rather, it provides an overview of documenting and coding for different types of asthma visits.



Slide 2

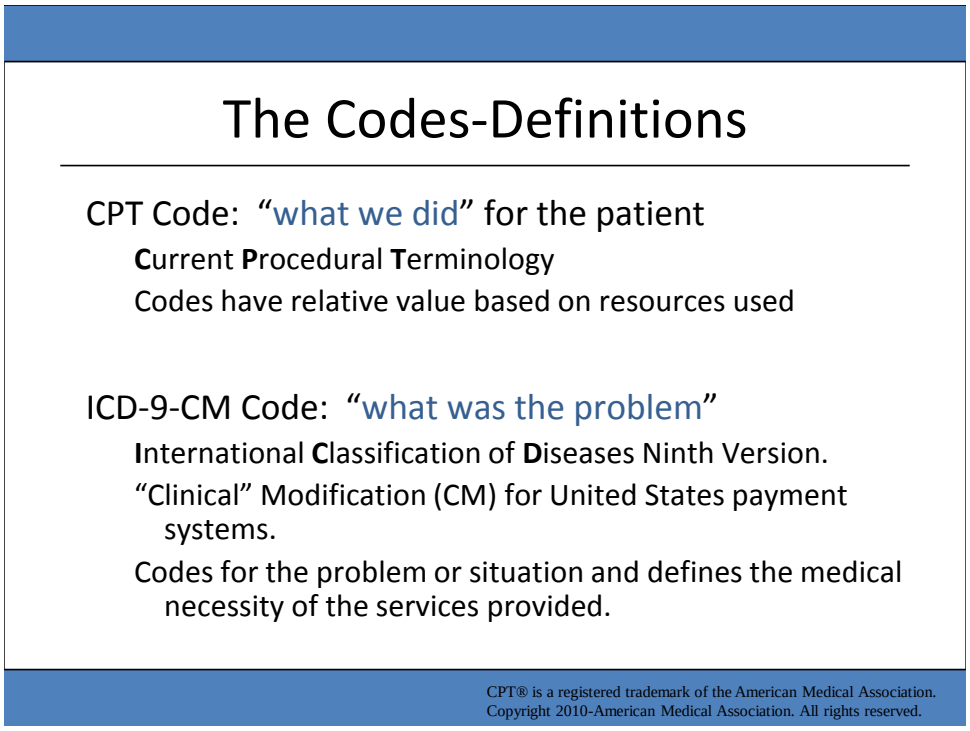
ADDITIONAL COMMENTS

- Despite the time physicians invest for education and counseling, pediatricians tend to undercharge for services they provide, due to poor documentation and coding.

- Despite the importance of documentation and coding, these topics are not a common component of pediatric residency curricula. Many physicians learn "on the job" or delegate this responsibility to office staff.

- There may be a perception that accurate coding is not necessary since reimbursement is based on predetermined contracts based on "covered lives" in managed care arrangements. However, these rates are derived, in part, from the claims generated by the codes submitted by physicians.

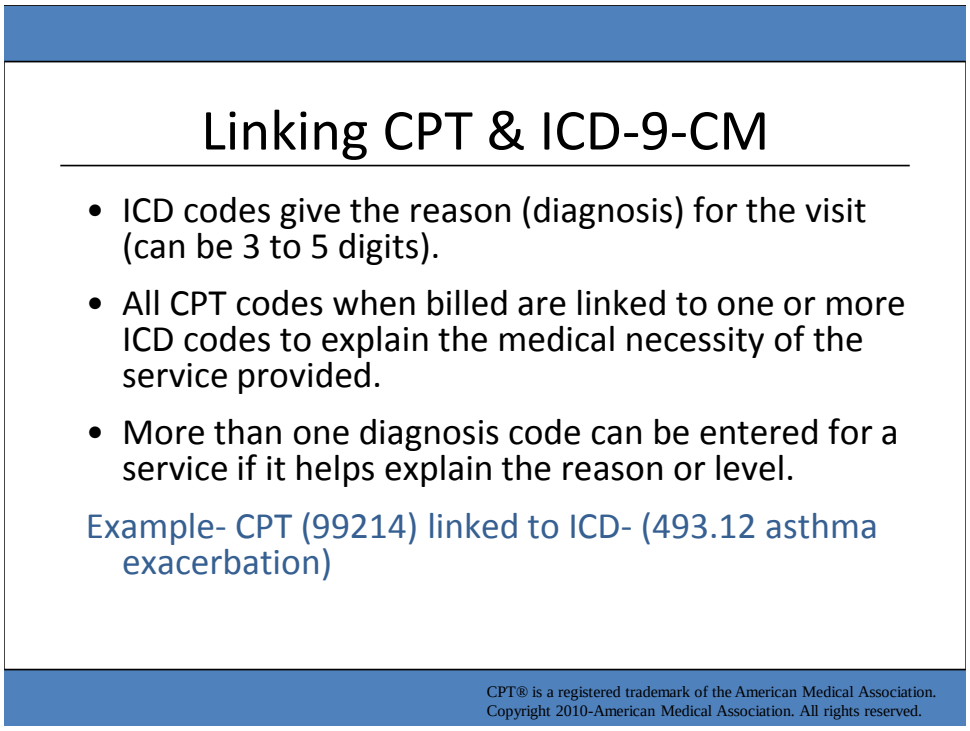
- Under-coding leads to under-compensation and as a result, less revenue per covered patient life. On the other hand, over-coding can lead to physicians getting "dropped" by managed care organizations since they might be perceived as not being "cost-effective."



Slide 3

***Reference*:**

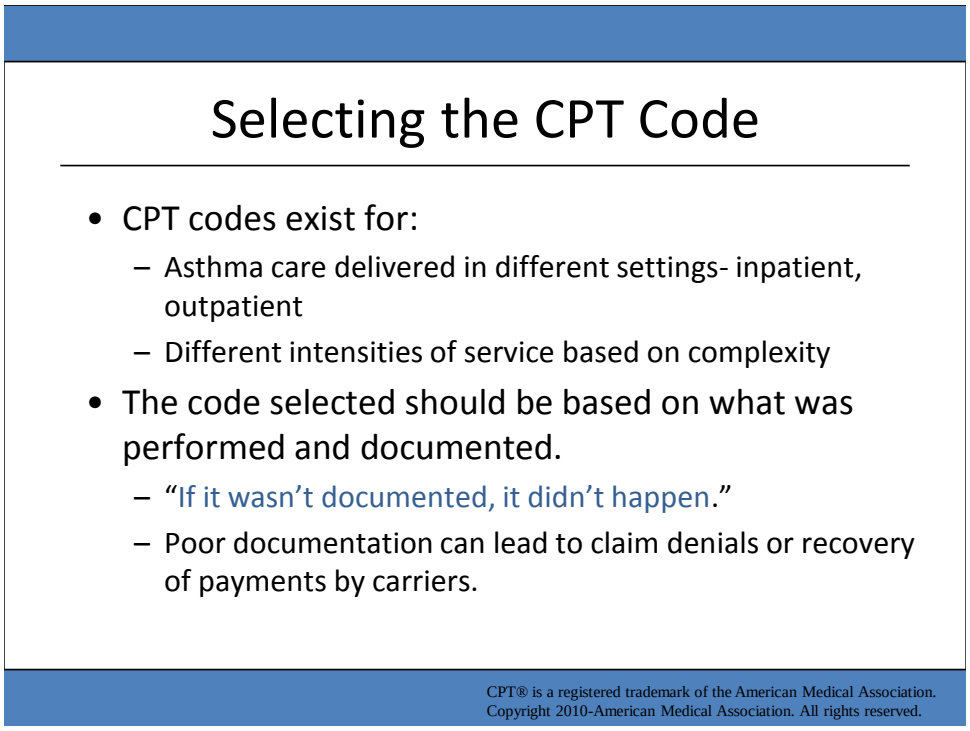
Committee on Coding and Nomenclature, American Academy of Pediatrics. *Coding for Pediatrics*. 16th Edition. Bradley J Ed. American Academy of Pediatrics, Elk Grove Village, IL. 2011.



Slide 4

ADDITIONAL COMMENTS

- The ICD-9 codes are also important.



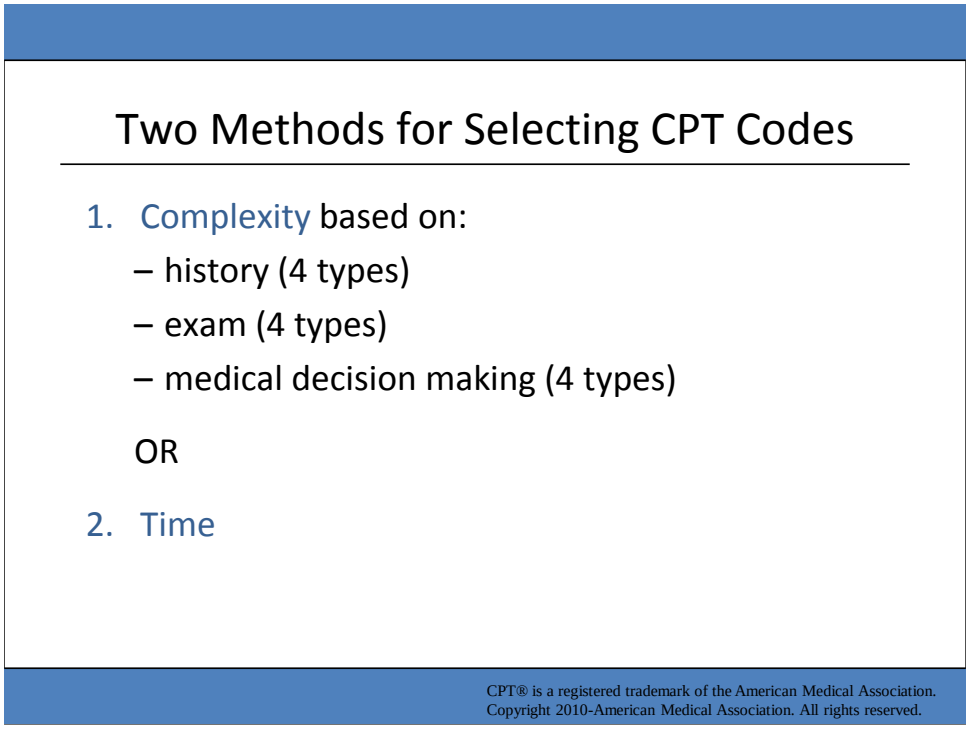
Slide 5

ADDITIONAL COMMENTS

- Office visits have 5 levels of complexity. One is the least complex and lowest value and 5 is the most complex and highest value. There are two general CPT coding strategies. Selecting a CPT code based on complexity of the patient encounter, or selecting a CPT code based on the use of physician time.

- A modifier is a 2-digit suffix added to a CPT code to indicate to the payer that something was different about the delivery of the service or that multiple services were provided on the same date. Please refer to **Handout #1: How to Use Modifiers Effectively**, in your binder for more information on how to use relevant modifiers.

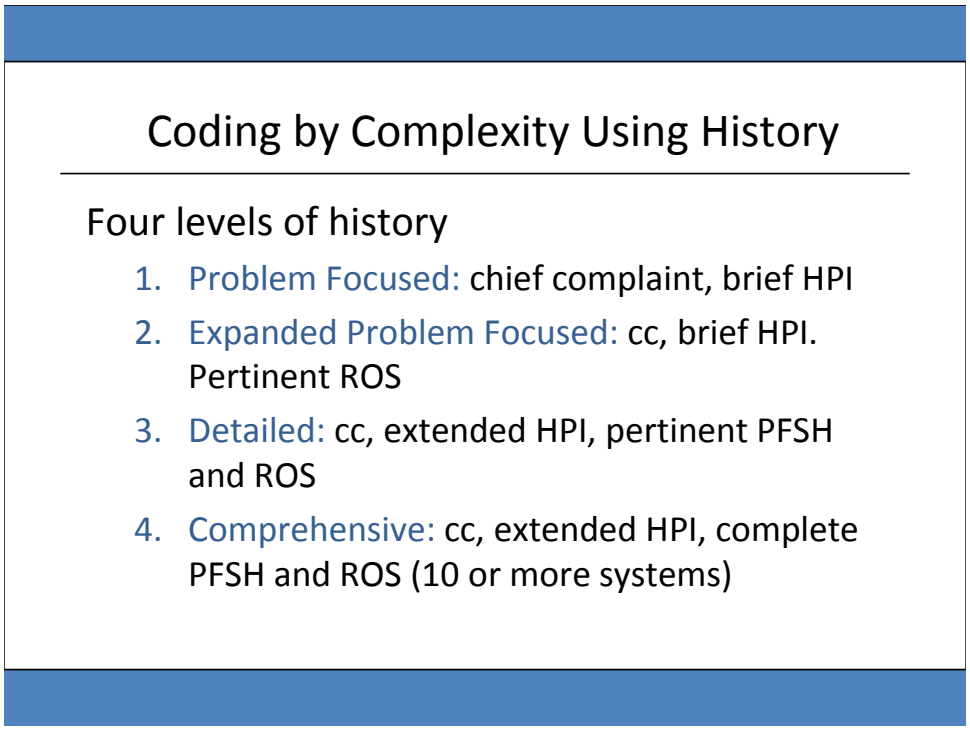
- Also, don't forget to bill correctly for the other services that you do in the office related to asthma care. Please refer to **Handout #2: CPT Codes for Other Asthma Services**.



Slide 6

ADDITIONAL COMMENTS

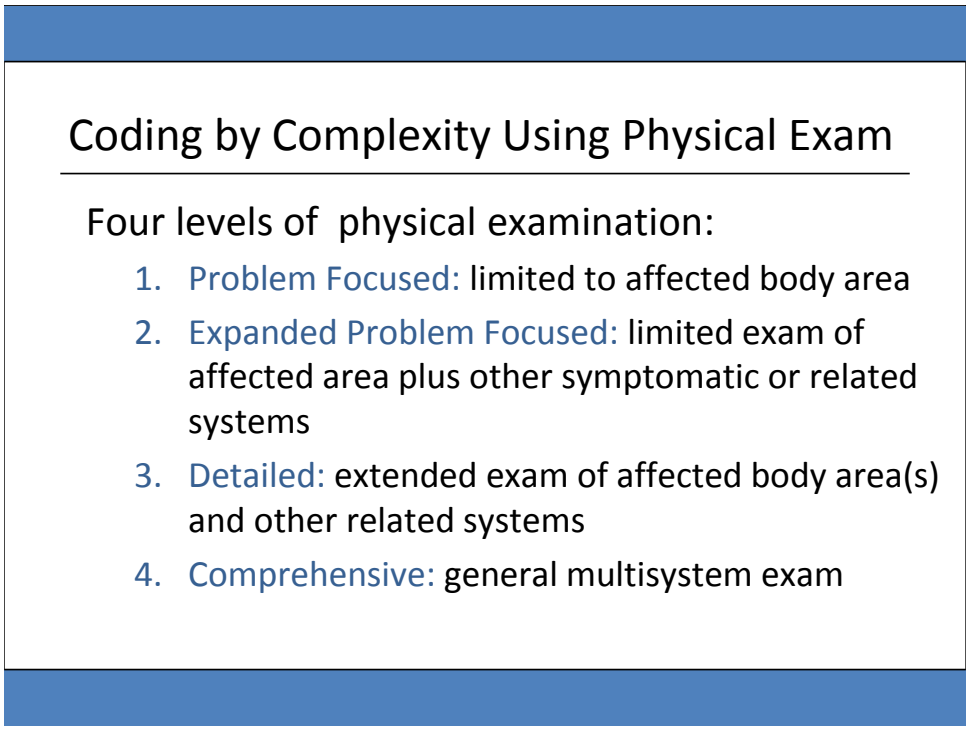
- To code based on complexity, there are three key components: history, physical exam and medical decision making.



Slide 7

ADDITIONAL COMMENTS

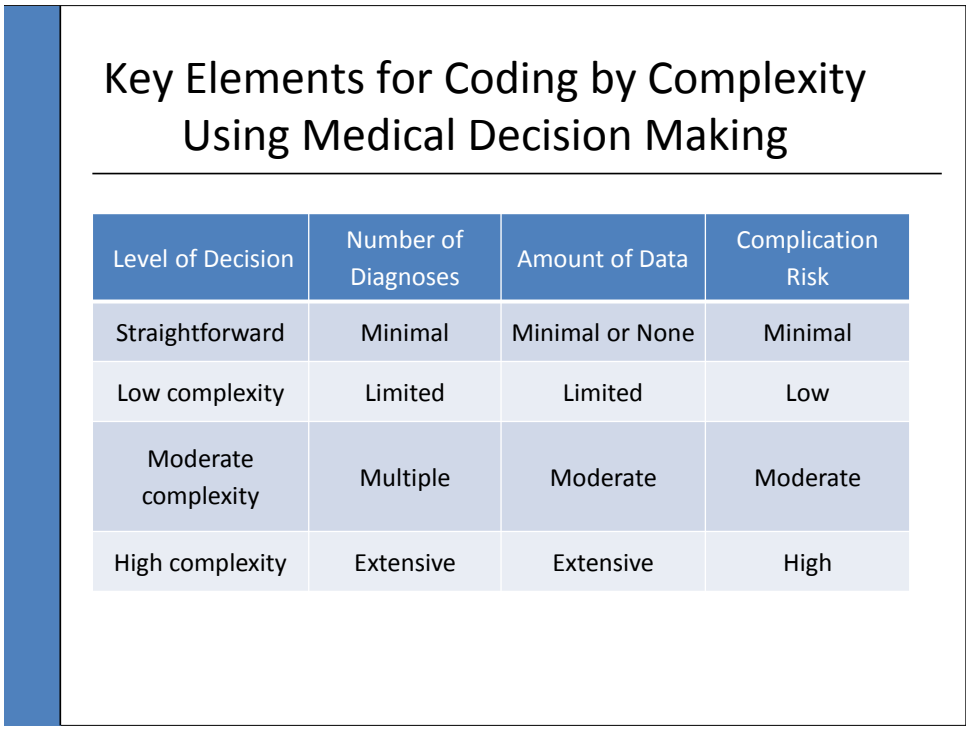
- There are four levels of history based on physician documentation of services rendered.
- Acronyms used:
  - HPI = history of present illness
  - cc = chief complaint
  - ROS = review of systems
  - PFSH = past, family, social history



Slide 8

ADDITIONAL COMMENTS

- There are four levels of physical examination based on physician documentation of services rendered.



Slide 9

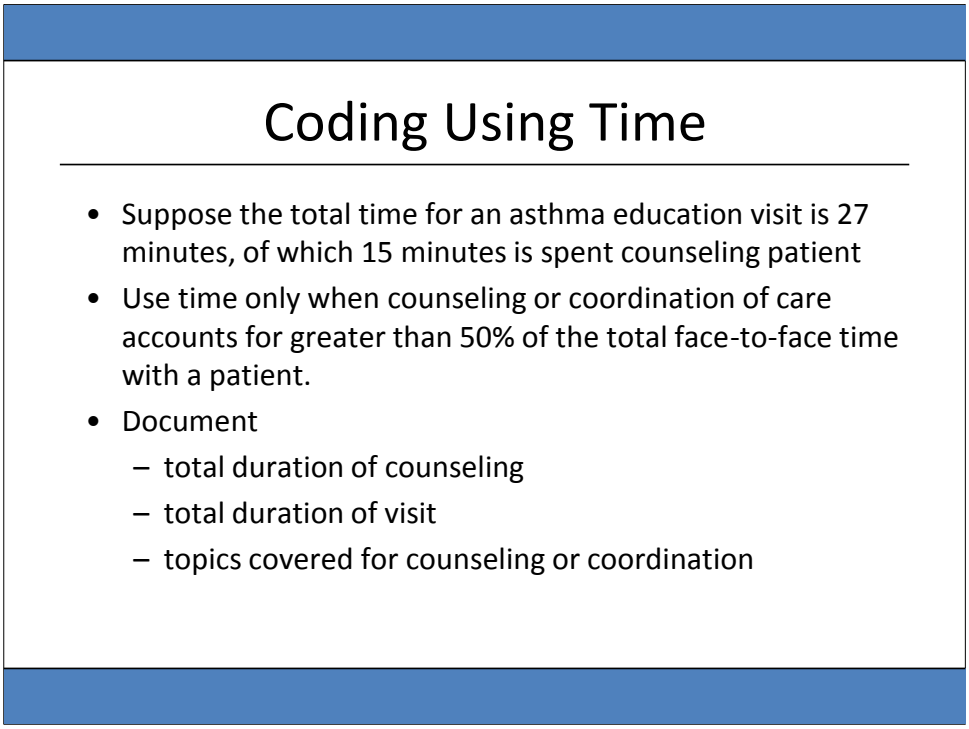
ADDITIONAL COMMENTS

- There are 4 types of medical decision making, which are based on the number of diagnoses, the amount of data and the complication risk.

- Code selection is different for new vs. established patients—one must know first the coding definition of a new patient, then establish a code selection based on the levels of the key components. Please refer to **Handout #3: New vs. Established Patients**. Note also that **Handout #4: CPT Codes for New Patients' Office Visits** and **Handout #5: CPT Codes for Established Patients' Office Visits** show a breakdown of the components by each level of visit.

- The amount of time listed here is the typical time assigned to these codes. So for an established patient, if you spent 15 minutes of face-to-face time during the visit and 8 minutes was spent on counseling and coordination of care, you could justify a level 3 visit.

- For an established patient, you only have to fulfill 2 out of the 3 components, and the typical times for each level are less than for new patients.

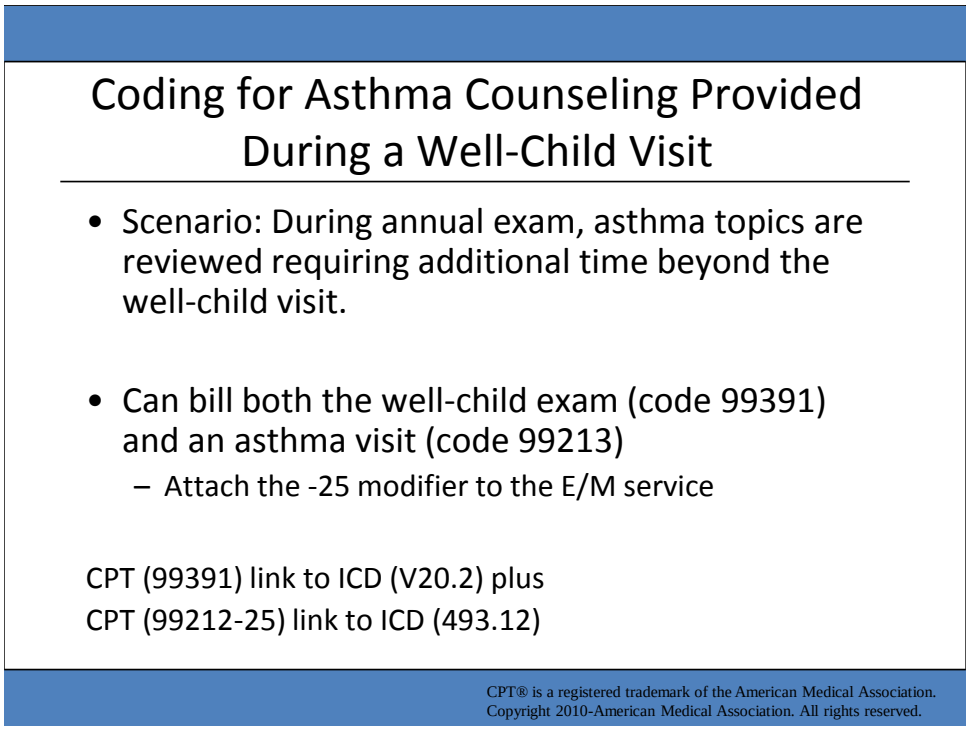


Slide 10

ADDITIONAL COMMENTS

- This is a Level 4 (99214) example
- Remember, there are two strategies: coding based on complexity of the key elements, and coding based on time. Here, the rules for coding based on time are given.
- Please refer to the **Physician's Record of Asthma Education Provided** handout in the communication section in your binder. This form is useful in documenting which topics were covered.
- Please refer to **Handout #6: Complexity Example: Established Patient Office Visit** for a Level 4 example based on complexity.

Reference:



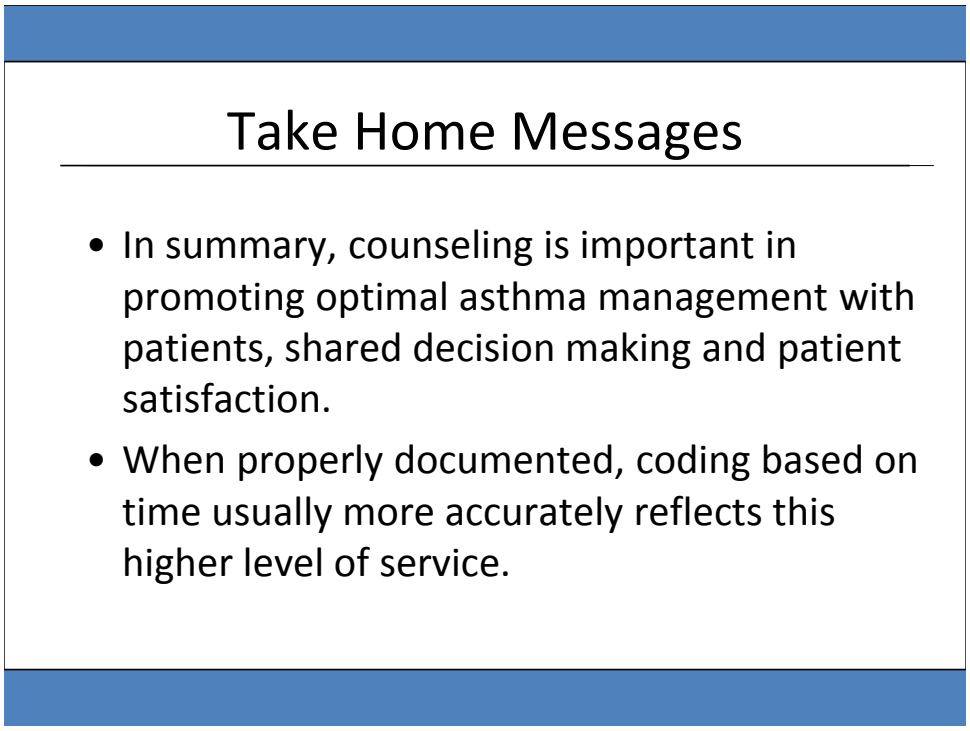
Slide 11

ADDITIONAL COMMENTS

- In addition, you may find yourself covering a lot of asthma topics during a well child exam. This may go beyond what you normally cover during a well-child exam.

- A -25 modifier is an additional code that says, "this visit was different." If you document the other topics covered, for example for a 99212 or Level 2 visit, you can add the 92212 claim along with the well-child exam code by attaching a -25 modifier to the 99212.

- Acronyms used:
  - E/M = Evaluation and management



Slide 12

ADDITIONAL COMMENTS

- Correct coding and documentation for asthma counseling and other services provide improvement in payments to support the mission of providing excellent asthma care.
- Please refer to **Handout #7: Documentation, Coding, and Reimbursement Tools** for additional resources that you may find helpful in correct coding for asthma or other services.

Summary

SUMMARY BY PRIMARY CARE PHYSICIAN OR ASTHMA SPECIALIST

The goal for all of us is to combine effective treatment and communication for our patients. We hope this program has stimulated your thinking and been of help to you.

HANDOUT: REIMBURSEMENT HINTS

We would also like to provide you with some background information on how to bill and code quality asthma education and counseling. See Reimbursement Hints handout in Appendix 4.

Before adjournment, complete CME procedures.

Appendix

The Appendix contains all documents included in the participant binder.

Appendix 1: Classification, Assessment, Therapy

- Classification, assessment, and therapy charts, ages 0-4, 5-11, and ≥12

Appendix 2: Sample Action Plans

- Sample asthma action plans
- Sample long-term plan

Appendix 3: Communication Strategies

- Communication strategies
- Key asthma messages for the patient and family
- Review of concepts
- Physician's record and self-rating

Appendix 4: Documentation and Coding

- Reimbursement Hints Q&A
- How to Use Modifiers Effectively
- CPT Codes for Other Asthma Services
- Coding Based on Complexity: New vs. Established Patients
- CPT Codes for New Patients' Office Visits
- CPT Codes for Established Patients' Office Visits
- Example – Level 4 (99214) Established Patient Office Visit Based on Complexity
- Documentation, Coding, and Reimbursement Tools

Appendix 5: Priority Messages and Patient Education

- Guidelines Implementation Panel (GIP) Priority Messages
- Patient Education Materials
    - Patient-Doctor Asthma Communications
    - 6 Steps to make the most of your visit with your child's doctor and improve the management of your child's asthma

Appendix 6: Master Trainers

Appendix 7: PACE References

APPENDIX 1

FIGURE 3–4a. CLASSIFYING ASTHMA SEVERITY IN CHILDREN 0–4 YEARS OF AGE

- **Classifying severity in children who are not currently taking long-term control medication.**

Components of Severity		Classification of Asthma Severity (Children 0–4 years of age)			
		Intermittent	Persistent		
			Mild	Moderate	Severe
Impairment	Symptoms	≤2 days/week	>2 days/week but not daily	Daily	Throughout the day
	Nighttime awakenings	0	1–2x/month	3–4x/month	>1x/week
	Short-acting $beta_2$-agonist use for symptom control (not prevention of EIB)	≤2 days/week	>2 days/week but not daily	Daily	Several times per day
	Interference with normal activity	None	Minor limitation	Some limitation	Extremely limited
Risk	Exacerbations requiring oral systemic corticosteroids	0–1/year	≥2 exacerbations in 6 months requiring oral steroids, or ≥4 wheezing episodes/1 year lasting >1 day AND risk factors for persistent asthma		
		Consider severity and interval since last exacerbation. Frequency and severity may fluctuate over time.			
		Exacerbations of any severity may occur in patients in any severity category			

- **Level of severity is determined by both impairment and risk. Assess impairment domain by caregiver's recall of previous 2–4 weeks. Assign severity to the most severe category in which any feature occurs.**
- **At present, there are inadequate data to correspond frequencies of exacerbations with different levels of asthma severity. For treatment purposes, patients who had ≥2 exacerbations requiring oral corticosteroids in the past 6 months, or ≥4 wheezing episodes in the past year, and who have risk factors for persistent asthma may be considered the same as patients who have persistent asthma, even in the absence of impairment levels consistent with persistent asthma.**

- **Classifying severity in patients after asthma becomes well controlled, by lowest level of treatment required to maintain control.***

Lowest level of treatment required to maintain control (See figure 4–1a for treatment steps.)	Classification of Asthma Severity			
	Intermittent	Persistent		
		Mild	Moderate	Severe
	Step 1	Step 2	Step 3 or 4	Step 5 or 6

Key: EIB, exercise-induced bronchospasm

*Notes:

- **For population-based evaluations, clinical research, or characterization of a patient's overall asthma severity after control is achieved. For clinical management, the focus is on monitoring the level of control (See figure 3–5a.), not the level of severity, once treatment is established.**
- **See figure 3–5a for definition of asthma control.**

FIGURE 3–4b. CLASSIFYING ASTHMA SEVERITY IN CHILDREN 5–11 YEARS OF AGE

■ **Classifying severity in children who are not currently taking long-term control medication.**

Components of Severity		Classification of Asthma Severity (Children 5–11 years of age)			
		Intermittent	Persistent		
			Mild	Moderate	Severe
Impairment	Symptoms	≤2 days/week	>2 days/week but not daily	Daily	Throughout the day
	Nighttime awakenings	≤2x/month	3–4x/month	>1x/week but not nightly	Often 7x/week
	Short-acting $beta_2$-agonist use for symptom control (not prevention of EIB)	≤2 days/week	>2 days/week but not daily	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 >85%	• FEV_1 = >80% predicted • FEV_1/FVC >80%	• FEV_1 = 60–80% predicted • FEV_1/FVC = 75–80%	• FEV_1 <60% predicted • FEV_1/FVC <75%
Risk	Exacerbations requiring oral systemic corticosteroids	0–1/year (see note)	≥2 in 1 year (see note) →		
		← 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			

- **Level of severity is determined by both impairment and risk. Assess impairment domain by patient's/caregiver's recall of the previous 2–4 weeks and spirometry. Assign severity to the most severe category in which any feature occurs.**
- **At present, there are inadequate data to correspond frequencies of exacerbations with different levels of asthma severity. In general, more frequent and intense exacerbations (e.g., requiring urgent, unscheduled care, hospitalization, or ICU admission) indicate greater underlying disease severity. For treatment purposes, patients who had ≥2 exacerbations requiring oral systemic corticosteroids in the past year may be considered the same as patients who have persistent asthma, even in the absence of impairment levels consistent with persistent asthma.**

■ **Classifying severity in patients after asthma becomes well controlled, by lowest level of treatment required to maintain control.***

Lowest level of treatment required to maintain control (See figure 4–1b for treatment steps.)	Classification of Asthma Severity			
	Intermittent	Persistent		
		Mild	Moderate	Severe
	Step 1	Step 2	Step 3 or 4	Step 5 or 6

Key: EIB, exercise-induced bronchospasm; FEV_1, forced expiratory volume in second; FVC, forced vital capacity; ICU, intensive care unit

***Notes:**

- **For population-based evaluations, clinical research, or characterization of a patient's overall asthma severity after control is achieved. For clinical management, the focus is on monitoring the level of control (See figure 3–5b.), not the level of severity, once treatment is established.**
- **See figure 3–5b for definition of asthma control.**

FIGURE 3–4c. CLASSIFYING ASTHMA SEVERITY IN YOUTHS ≥12 YEARS OF AGE AND ADULTS

■ **Classifying severity for patients who are not currently taking long-term control medications.**

Components of Severity		Classification of Asthma Severity (Youths ≥12 years of age and adults)			
			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	≤2x/month	3–4x/month	>1x/week but not nightly	Often 7x/week
	Short-acting $beta_2$-agonist use for symptom control (not prevention of EIB)	≤2 days/week	>2 days/week but not >1x/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 (see note)	≥2/year (see note) →		
		← 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			

- **Level of severity is determined by assessment of both impairment and risk. Assess impairment domain by patient's/caregiver's recall of previous 2–4 weeks and spirometry. Assign severity to the most severe category in which any feature occurs.**
- **At present, there are inadequate data to correspond frequencies of exacerbations with different levels of asthma severity. In general, more frequent and intense exacerbations (e.g., requiring urgent, unscheduled care, hospitalization, or ICU admission) indicate greater underlying disease severity. For treatment purposes, patients who had ≥2 exacerbations requiring oral systemic corticosteroids in the past year may be considered the same as patients who have persistent asthma, even in the absence of impairment levels consistent with persistent asthma.**

■ **Classifying severity in patients after asthma becomes well controlled, by lowest level of treatment required to maintain control.***

Lowest level of treatment required to maintain control (See figure 4–5 for treatment steps.)	Classification of Asthma Severity			
	Intermittent	Persistent		
		Mild	Moderate	Severe
	Step 1	Step 2	Step 3 or 4	Step 5 or 6

Key: EIB, exercise-induced bronchospasm; FEV_1, forced expiratory volume in 1 second; FVC, forced vital capacity; ICU, intensive care unit

***Notes:**

- **For population-based evaluations, clinical research, or characterization of a patient's overall asthma severity after control is achieved. For clinical management, the focus is on monitoring the level of control (See figure 3–5c.), not the level of severity, once treatment is established.**
- **See figure 3–5c for definition of asthma control.**

FIGURE 3–5a. ASSESSING ASTHMA CONTROL IN CHILDREN 0–4 YEARS OF AGE

Components of Control		Classification of Asthma Control (Children 0–4 years of age)		
		Well Controlled	Not Well Controlled	Very Poorly Controlled
Impairment	Symptoms	≤2 days/week	>2 days/week	Throughout the day
	Nighttime awakenings	≤1x/month	>1x/month	>1x/week
	Interference with normal activity	None	Some limitation	Extremely limited
	Short-acting $beta_2$-agonist use for symptom control (not prevention of EIB)	≤2 days/week	>2 days/week	Several times per day
Risk	Exacerbations requiring oral systemic corticosteroids	0–1/year	2–3/year	>3/year
	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.		

Key: EIB, exercise-induced bronchospasm; ICU, intensive care unit

Notes:

- The level of control is based on the most severe impairment or risk category. Assess impairment domain by caregiver's recall of previous 2–4 weeks. Symptom assessment for longer periods should reflect a global assessment, such as inquiring whether the patient's asthma is better or worse since the last visit.
- At present, there are inadequate data to correspond frequencies of exacerbations with different levels of asthma control. In general, more frequent and intense exacerbations (e.g., requiring urgent, unscheduled care, hospitalization, or ICU admission) indicate poorer disease control. For treatment purposes, patients who had ≥2 exacerbations requiring oral systemic corticosteroids in the past year may be considered the same as patients who have not-well-controlled asthma, even in the absence of impairment levels consistent with persistent asthma.

FIGURE 3–5b. ASSESSING ASTHMA CONTROL IN CHILDREN 5–11 YEARS OF AGE

Components of Control		Classification of Asthma Control (Children 5–11 years of age)		
		Well Controlled	**Not Well Controlled**	**Very Poorly Controlled**
Impairment	Symptoms	≤2 days/week but not more than once on each day	>2 days/week or multiple times on ≤2 days/week	Throughout the day
	Nighttime awakenings	≤1x/month	≥2x/month	≥2x/week
	Interference with normal activity	None	Some limitation	Extremely limited
	Short-acting $beta_2$-agonist use for symptom control (not prevention of EIB)	≤2 days/week	>2 days/week	Several times per day
	Lung function ▪ FEV_1 or peak flow ▪ FEV_1/FVC	 >80% predicted/ personal best >80%	 60–80% predicted/ personal best 75–80%	 <60% predicted/ personal best <75%
Risk	Exacerbations requiring oral systemic corticosteroids	0–1/year	≥2/year (see note)	
		Consider severity and interval since last exacerbation		
	Reduction in lung growth	Evaluation requires long-term followup.		
	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.		

Key: EIB, exercise-induced bronchospasm; FEV_1, forced expiratory volume in 1 second; FVC, forced vital capacity; ICU, intensive care unit

Notes:

- The level of control is based on the most severe impairment or risk category. Assess impairment domain by patient's/caregiver's recall of previous 2–4 weeks and by spirometry/or peak flow measures. Symptom assessment for longer periods should reflect a global assessment, such as inquiring whether the patient's asthma is better or worse since the last visit.
- At present, there are inadequate data to correspond frequencies of exacerbations with different levels of asthma control. In general, more frequent and intense exacerbations (e.g., requiring urgent, unscheduled care, hospitalization, or ICU admission) indicate poorer disease control. For treatment purposes, patients who had ≥2 exacerbations requiring oral systemic corticosteroids in the past year may be considered the same as patients who have not-well-controlled asthma, even in the absence of impairment levels consistent with not-well-controlled asthma.

FIGURE 3–5c. ASSESSING ASTHMA CONTROL IN YOUTHS ≥12 YEARS OF AGE AND ADULTS

Components of Control		Classification of Asthma Control (Youths ≥12 years of age and adults)		
		Well-Controlled	Not Well-Controlled	Very Poorly Controlled
Impairment	Symptoms	≤2 days/week	>2 days/week	Throughout the day
	Nighttime awakening	≤2x/month	1–3x/week	≥4x/week
	Interference with normal activity	None	Some limitation	Extremely limited
	Short-acting $beta_2$-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	0–1/year	≥2/year (see note)	
		Consider severity and interval since last exacerbation		
	Progressive loss of lung function	Evaluation requires long-term followup 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.		

*ACQ values of 0.76–1.4 are indeterminate regarding well-controlled asthma.

Key: EIB, exercise-induced bronchospasm; FEV_1, forced expiratory volume in 1 second. See figure 3–8 for full name and source of ATAQ, ACQ, ACT.

Notes:

- The level of control is based on the most severe impairment or risk category. Assess impairment domain by patient's recall of previous 2–4 weeks and by spirometry/or peak flow measures. Symptom assessment for longer periods should reflect a global assessment, such as inquiring whether the patient's asthma is better or worse since the last visit.
- At present, there are inadequate data to correspond frequencies of exacerbations with different levels of asthma control. In general, more frequent and intense exacerbations (e.g., requiring urgent, unscheduled care, hospitalization, or ICU admission) indicate poorer disease control. For treatment purposes, patients who had ≥2 exacerbations requiring oral systemic corticosteroids in the past year may be considered the same as patients who have not-well-controlled asthma, even in the absence of impairment levels consistent with not-well-controlled asthma.

APPENDIX 2

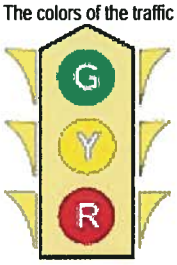
Asthma Action Plan

Asthma
Breathing easier in Iowa

www.idph.state.ia.us **(Press Firmly)**

Name	Date of Birth	Effective Date
Katie Miller	10 yrs	/ / to / /
Doctor		Parent/Guardian
Doctor's Office Phone Number		Parent's Phone
Emergency Contact After Parent		Contact Phone

The colors of the traffic light will help you use your asthma medicines.



Green means **Go Zone!**
Use preventive medicine.

Yellow means **Caution Zone!**
Add prescribed yellow zone medicine.

Red means **Danger Zone!**
Get help from a doctor.

Pay Attention to Symptoms.

GO (Green)

You have *all* of these:
- Breathing is good
- No cough or wheeze
- Sleep through the night
- Can work and play

Peak flow from _____ to _____

Personal Best Peak Flow _____

CAUTION (Yellow)

You have *any* of these:
- First sign of cold
- Exposure to known trigger
- Cough
- Mild wheeze
- Tight chest
- Coughing at night

Peak flow from _____ to _____

DANGER (Red)

Your asthma is getting worse fast:
- Medicine is not helping
- Breathing is hard and fast
- Nose opens wide
- Ribs show
- Lips blue
- Fingernails blue
- Trouble walking and talking

Peak flow from _____ to _____

Use these medicines every day

MEDICINE/DOSAGE	HOW MUCH TO TAKE	WHEN TO TAKE IT
Qvar 40	2 Puffs	Morning and Night
COMMENTS: Don't forget to use your spacer!		

For asthma with exercise, take:

Albuterol	2 Puffs	30 minutes before exercise

Continue with green zone medicine and ADD:

MEDICINE/DOSAGE	HOW MUCH TO TAKE	WHEN TO TAKE IT
Qvar 40	2 Puffs	Morning and Night
Albuterol	2 Puffs	Every 4-6 hours as needed
COMMENTS:		

IF QUICK RELIEVER/YELLOW ZONE MEDICINE IS NEEDED MORE THAN 2-3 TIMES A WEEK THEN CALL YOUR DOCTOR.

Take these medicines and call your doctor

EMERGENCY MEDICINE/DOSAGE	HOW MUCH TO TAKE	WHEN TO TAKE IT
Orapred	2 tsp	Morning and Night for five days only
Albuterol	2 Puffs	Every 3-4 hours as needed
COMMENTS: Use Orapred only if OK by office		

Get help from a doctor now! It's important!

Asthma is a potentially life threatening illness. If you cannot contact your doctor, go directly to the emergency room. DO NOT WAIT. Make an appointment with your primary care provider within two days of an ER visit or hospitalization.

Check all items that trigger your asthma and things that could make your asthma worse:

- ☐ Chalk Dust
- ☐ Cigarette smoke & second hand smoke
- ☐ Colds/Flu
- ☐ Dust mites, dust, stuffed animals, carpet
- ☐ Exercise
- ☐ Mold
- ☐ Ozone alert days
- ☐ Pests - rodents & cockroaches
- ☐ Pets - animal dander
- ☐ Plants, flowers, cut grass, pollen
- ☐ Strong odors, perfumes, cleaning products, scented products
- ☐ Sudden temperature change
- ☐ Wood smoke
- ☐ Foods: _____ _____ _____
- ☐ Other: _____ _____ _____

☒ This student is capable and has been instructed in the proper method of self-administering the medications named above (or attached prescription).

☐ This student is not approved to self-medicate.

Check asthma severity: ☐ Mild Intermittent ☐ Mild Persistent ☒ Moderate Persistent ☐ Severe Persistent

PHYSICIAN SIGNATURE _____

PHYSICIAN STAMP

Produced by the Iowa Department of Public Health
Adapted from the NYC Childhood Asthma Initiative
Adapted from NHLBI

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Printed 2003

WHITE - School/Child Care Copy Pink - Family Copy Yellow - Doctor Copy

Asthma Action Plan

For: Scott Smith Doctor: _____ Date: _____

Doctor's Phone Number _____ Hospital/Emergency Department Phone Number _____

GREEN ZONE — Doing Well

- No cough, wheeze, chest tightness, or shortness of breath during the day or night
- Can do usual activities

And, if a peak flow meter is used,

Peak flow: more than _____
(80 percent or more of my best peak flow)

My best peak flow is: _____

Take these long-term control medicines each day (include an anti-inflammatory).

Medicine	How much to take	When to take it
Singulair 5mg	1 tablet	Every Evening
Flovent 44 mcg	2 puffs	Twice a Day
Before exercise — ☒ Albuterol	☒ 2 or ☐ 4 puffs	5 to 60 minutes before exercise

YELLOW ZONE — Asthma Is Getting Worse

- Cough, wheeze, chest tightness, or shortness of breath, or
- Waking at night due to asthma, or
- Can do some, but not all, usual activities

-Or-

Peak flow: _____ to _____
(50 to 79 percent of my best peak flow)

First — **Add: quick-relief medicine—and keep taking your GREEN ZONE medicine.**

Albuterol (short-acting beta$_2$-agonist) ☐ 2 or ☒ 4 puffs, every 20 minutes for up to 1 hour ☐ Nebulizer, once

Second

If your symptoms (and peak flow, if used) return to GREEN ZONE after 1 hour of above treatment:

☒ Continue monitoring to be sure you stay in the green zone.

-Or-

If your symptoms (and peak flow, if used) do not return to GREEN ZONE after 1 hour of above treatment:

☒ Take: Albuterol (short-acting beta$_2$-agonist) ☐ 2 or ☒ 4 puffs or ☒ Nebulizer

☒ Add: Prednisone 60 (oral steroid) mg per day For 5 ~~(3–10)~~ days

☒ Call the doctor ☒ before/ ~~within~~ hours after taking the oral steroid.

RED ZONE — Medical Alert!

- Very short of breath, or
- Quick-relief medicines have not helped, or
- Cannot do usual activities, or
- Symptoms are same or get worse after 24 hours in Yellow Zone

-Or-

Peak flow: less than _____
(50 percent of my best peak flow)

Take this medicine:

☐ Albuterol (short-acting beta$_2$-agonist) ☐ 4 or ☒ 6 puffs or ☒ Nebulizer

☐ Prednisone 60 (oral steroid) mg

Then call your doctor NOW. Go to the hospital or call an ambulance if:

- You are still in the red zone after 15 minutes AND
- You have not reached your doctor.

DANGER SIGNS

- **Trouble walking and talking due to shortness of breath**
- **Lips or fingernails are blue**

→

- **Take ☐ 4 or ☐ 6 puffs of your quick-relief medicine AND**
- **Go to the hospital or call for an ambulance _____ (phone) NOW!**

See the reverse side for things you can do to avoid your asthma triggers.

How To Control Things That Make Your Asthma Worse

This guide suggests things you can do to avoid your asthma triggers. Put a check next to the triggers that you know make your asthma worse and ask your doctor to help you find out if you have other triggers as well. Then decide with your doctor what steps you will take.

Allergens

☒ **Animal Dander**

Some people are allergic to the flakes of skin or dried saliva from animals with fur or feathers.

The best thing to do:

- Keep furred or feathered pets out of your home.

If you can't keep the pet outdoors, then:

- Keep the pet out of your bedroom and other sleeping areas at all times, and keep the door closed.
- Remove carpets and furniture covered with cloth from your home. If that is not possible, keep the pet away from fabric-covered furniture and carpets.

☒ **Dust Mites**

Many people with asthma are allergic to dust mites. Dust mites are tiny bugs that are found in every home—in mattresses, pillows, carpets, upholstered furniture, bedcovers, clothes, stuffed toys, and fabric or other fabric-covered items.

Things that can help:

- Encase your mattress in a special dust-proof cover.
- Encase your pillow in a special dust-proof cover or wash the pillow each week in hot water. Water must be hotter than 130° F to kill the mites. Cold or warm water used with detergent and bleach can also be effective.
- Wash the sheets and blankets on your bed each week in hot water.
- Reduce indoor humidity to below 60 percent (ideally between 30—50 percent). Dehumidifiers or central air conditioners can do this.
- Try not to sleep or lie on cloth-covered cushions.
- Remove carpets from your bedroom and those laid on concrete, if you can.
- Keep stuffed toys out of the bed or wash the toys weekly in hot water or cooler water with detergent and bleach.

☐ **Cockroaches**

Many people with asthma are allergic to the dried droppings and remains of cockroaches.

The best thing to do:

- Keep food and garbage in closed containers. Never leave food out.
- Use poison baits, powders, gels, or paste (for example, boric acid). You can also use traps.
- If a spray is used to kill roaches, stay out of the room until the odor goes away.

☐ **Indoor Mold**

- Fix leaky faucets, pipes, or other sources of water that have mold around them.
- Clean moldy surfaces with a cleaner that has bleach in it.

☐ **Pollen and Outdoor Mold**

What to do during your allergy season (when pollen or mold spore counts are high):

- Try to keep your windows closed.
- Stay indoors with windows closed from late morning to afternoon, if you can. Pollen and some mold spore counts are highest at that time.
- Ask your doctor whether you need to take or increase anti-inflammatory medicine before your allergy season starts.

Irritants

☒ **Tobacco Smoke**

- If you smoke, ask your doctor for ways to help you quit. Ask family members to quit smoking, too.
- Do not allow smoking in your home or car.

☐ **Smoke, Strong Odors, and Sprays**

- If possible, do not use a wood-burning stove, kerosene heater, or fireplace.
- Try to stay away from strong odors and sprays, such as perfume, talcum powder, hair spray, and paints.

Other things that bring on asthma symptoms in some people include:

☐ **Vacuum Cleaning**

- Try to get someone else to vacuum for you once or twice a week, if you can. Stay out of rooms while they are being vacuumed and for a short while afterward.
- If you vacuum, use a dust mask (from a hardware store), a double-layered or microfilter vacuum cleaner bag, or a vacuum cleaner with a HEPA filter.

☒ **Other Things That Can Make Asthma Worse**

- Sulfites in foods and beverages: Do not drink beer or wine or eat dried fruit, processed potatoes, or shrimp if they cause asthma symptoms.
- Cold air: Cover your nose and mouth with a scarf on cold or windy days.
- Other medicines: Tell your doctor about all the medicines you take. Include cold medicines, aspirin, vitamins and other supplements, and nonselective beta-blockers (including those in eye drops).

U.S. Department of Health and Human Services
National Institutes of Health

National Heart Lung and Blood Institute

For More Information, go to: www.nhlbi.nih.gov

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April 2007

SAMPLE LONG TERM TREATMENT PLAN

Name: Daryll Ward **Age: 8 years old** **Weight: 60 lbs**

Moderate persistent asthma currently on long-term medication

CLINICAL CONDITION	Baseline Plan & When asthma is under control	At the FIRST sign of a cold or mild asthma attack	For rapidly worsening asthma (severe attack)	When there is no cough or wheeze for 3 months	For cough or wheeze with exercise
SYMPTOMS	• Breathing is good with no daily or nighttime symptoms • Able to do usual activities	• Breathing problems and symptoms present or waking up from sleep • Can do some but not all usual activities	• Breathing is hard and fast • Rescue medicines have not helped • Cannot do usual activities	• Breathing is good with no daily or nighttime symptoms • Able to do usual activities	2 puffs 5-10 minutes before exercise
PEAK FLOW (LPM)	200-230	180-200	<180	200-230	
MEDICATION *Reliever:* Albuterol	2 puffs as needed	2 puffs every 4 hr	2-6 puffs every 20 minutes for 3 doses then 2-4 puffs every 4 hr	2 puffs as needed	
Controller: 1) Beclomethasone (ICS), 40 mcg	1-2 puffs 2x/day	1-2 puffs 2x/day	1-2 puffs 2x/day	0-1 puffs 2x/day	
Corticosteroid Tablet or Syrup	0	0	Begin with 1-2 mg/kg/day **NOTIFY MD**	0	

* If patients develops symptoms when corticosteroid discontinued, either resume corticosteroids or try leukotriene modifier

APPENDIX 3

Communication Strategies

Nonverbal attentiveness

Sit at the same level as patient and family. Avoid having a barrier, such as a desk between you. Make eye contact when listening and speaking. Lean forward slightly.

Eliciting underlying fears

Ask open-ended questions such as:

- "What is your greatest worry about asthma?"
- "What concerns do you have about the medicine?"
- "What things would you like to do that your asthma makes it hard to do?"

Addressing immediate concerns

Patient or family concerns should be addressed right away, even if a complete answer isn't possible at the time. The purpose is to reassure the family by being responsive to the issues that matter to them.

Reassuring messages

Unrealistic fears (of medicines or possible fatality) can block compliance. By conveying accurate information about risks and stressing that following your recommendations will increase the child's safety, the family will be reassured and more likely to follow your advice.

Interactive conversation

Ask open-ended questions that can't be answered "yes" or "no" to encourage the family to convey information about beliefs, concerns, and how they manage asthma at home. Use simple, clear language and avoid medical jargon. Use analogies to ensure that the family grasps new ideas.

Tailoring the regimen

Assess the family's daily routine to learn the best times and places for giving medicines during the day. Reach agreement on a daily plan for taking the medicine, making sure they are willing and able to follow it.

Planning for decision-making

Help the family plan for decision-making by encouraging them to keep a diary and/or develop strategies for handling potential problems or choices that may occur, such as emergencies at school or participation in sports at school or summer camp. Reviewing the written treatment plan with the family helps them know how to decide when medicines should be adjusted to control symptoms, and when the child needs immediate medical attention.

Setting short-term goals for treatment

Should be decided with the family, and tied to the patient's own goals to increase motivation to follow the treatment plan. Provides a benchmark for the family to judge progress.

Setting goals with the long-term treatment plan

Having a long-term treatment plan helps the family know what to expect and what they may be able to achieve through preventive care.

Nonverbal encouragement and verbal praise

Reinforce positive steps the family has taken to control asthma. Use these strategies to increase their confidence that they can manage asthma successfully following your plan.

Key Asthma Messages for the Patient and Family

1. What happens in an asthma attack

In an asthma attack you have trouble breathing because:

- The airway lining swells and produces too much mucus (inflammation)
- The muscles around the airways squeeze them partly shut (bronchospasm)

2. How medicines work

Anti-inflammatories don't give an immediate feeling of relief, but are crucial to reducing inflammation and preventing its return. Bronchodilators relax the muscles that have tightened around the airways.

Call me if either of the following happen, because it means the medicines need to be adjusted:

- If bronchodilators are needed more than 4 times a day, we need to increase the amount of anti-inflammatory medicine.
- If there is jitteriness or anxiety, we will need to reduce the amount of bronchodilator.

3. Responding to changes in asthma severity

GIP Message: All people who have asthma should receive a written asthma action plan to guide their self-management efforts.

When symptoms change, use the long term plan to adjust the medicines.

If symptoms worsen rapidly, follow the emergency plan I've given you.

Come immediately for treatment to my office or the hospital if any of the following happens:

- No improvement after following the emergency plan
- So breathless you can't talk or walk
- Blue fingernails or lips

4. How to take medicines

Demonstrate for me how to use the metered dose inhaler and spacer.

Show me how to use the peak flow meter.

Use the step by step instructions at home.

5. Safety of medicines

The medicines I've prescribed are safe when used in the doses I've recommended.

Low doses of inhaled corticosteroids are safe and do not cause serious side effects.

Corticosteroids are not the same as the muscle-building steroids some athletes use.

6. Goals of therapy

Your child should be symptom free.

This control should be achieved with as little medicine as possible. The long-term plan can get us to the point of decreasing or stopping the medicines.

Some people with asthma have been sports champions and Olympic gold medalists.

7. Criteria of successful treatment

Your child should sleep through the night, have no wheeze or cough even during exercise or colds, and be fully active.

If you continue to have symptoms, call me and we'll fine tune the plan.

If your child has asthma symptoms more than once every two months, daily medicines will be needed until there are no symptoms for 3 or 4 months even during exercise or colds.

8. Managing asthma at school

Key school personnel need to be informed about the child's asthma.

Important points to inform the school about are:

- How to minimize exposure to triggers
- When to use medicine at school
- Encouraging participation in physical activities
- What to do in an emergency

Only keep your child home if the wheezing is bad or she has a fever or sore throat.

9. Identifying and avoiding triggers

GIP Message: Clinicians should review each patient's exposure to allergens and irritants and provide a multipronged strategy to reduce exposure to those allergens and irritants to which a patient is sensitive and exposed.

Sometimes triggers to symptoms can be identified, so see if you can discover what yours are.

Triggers may include respiratory infections, allergens (dust, roach, and animal dander), irritants (smoke), and exercise.

Use bronchodilator and cromolyn preventively when you may be exposed to a trigger.

10. Referral to further education and review of goals

Take part in a comprehensive asthma self-management program.
Remember our goal for your child is to be symptom free and fully active.

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Review of Concepts - Management & Treatment

Message		What the Message Addresses
Airway lining swells and mucous forms Muscles tighten around airways		Asthma diagnosis (bad news)
Anti-inflammatories reduce inflammation Quick-relief medicines (short-acting β_2-agonists) relax muscles		Benefits of medicine (good news)
Quick-relief medicine not to be used more than two days a week Watch for jitteriness and anxiety		Side effects can be limited
Follow the written asthma action plan		Shows that medicines are adjusted according to the level of control a patient can achieve Shows the benefits of using medicines can outweigh costs
Demonstrate use of asthma medicines and devices Use instructions in written asthma action plan		Builds self confidence and level of skills
Need daily anti-inflammatories		Reducing susceptibility to asthma episodes
Long-term goal to control asthma with as little medicine as necessary		Shows how benefits of following regimen over time outweigh costs
Medicines safe when used as instructed Inhaled corticosteroids safe in low doses Corticosteroids differ from anabolic		Builds confidence in the regimen Reduces fear associated with use of medicine
Expect to exercise without symptoms Expect to sleep through the night		Shows benefits of therapy
Plan can be fine-tuned if problems arise		Shows that ongoing partnership with clinician is needed

Be physically active Sports champs have asthma in control		Shows benefits of therapy Builds self-confidence
School personnel need to be informed about triggers, medications, physical exercise, emergencies		Need for support in the social environment
Triggers can be identified		Increases feelings of control Reduces susceptibility to episodes
Use medicines preventively when your child may be exposed to triggers		Shows benefits of therapy Increases feeling of control
The goal is to be symptom-free		Shows benefits of staying with therapy
Take part in additional asthma education		Builds self-confidence

Physician's Record: Categories of Asthma Messages Provided

Patient's Name: _____

Check if topic covered.

VISIT ONE

- ☐ What happens to the airways in an asthma attack?
- ☐ How medicines work (rescue/control)?
- ☐ Responding at home to changes in asthma severity (long-term plan and emergency plan
- ☐ How to take medicines (child/parent demonstrate

VISIT TWO

- ☐ Safety of medicines when used as directed
- ☐ Goals of therapy (no symptoms with as little medicine as necessary
- ☐ Criteria of successful treatment (sleep through the night, no asthma symptoms even with exercise or colds

VISIT THREE

- ☐ Managing asthma at school
- ☐ Identifying triggers
- ☐ Referral to additional asthma education
- ☐ Review of goals of therapy

Physician's Self-Rating Scale on Interactions with the Family

Patient's Name: _____ Date:_____

PHYSICIAN GOALS FOR THE INTERACTION:

- Have parent and child specify his/her concerns and get questions onto the table.
- Reach agreement on being partners.
- Ensure that in achieving a short-term treatment goal, parents see the necessity of a long-term treatment plan.
- Agree on the steps of self-management at home.

Rate your behavior in the interaction with the family: 1=low rating, 5=high rating

WERE YOU ABLE TO:

1. Use appropriate non-verbal attentiveness (e.g. eye contact, closing social distance, etc.)?

1 2 3 4 5

_____

2. Elicit the parents' and child's underlying concern about the child's asthma?

1 2 3 4 5

_____

3. Construct reassuring messages regarding the parents' and child's fears?

1 2 3 4 5

_____

4. Address immediately the concerns the family expressed?

1 2 3 4 5

_____

5. Engage the family in interactive conversation (e.g. used open-ended questions, simple language, analogies, etc.)?

1 2 3 4 5

_____

6. Tailor the regimen by eliciting and addressing potential problems in the timing, dosage, or side effects of the medicines recommended?

1 2 3 4 5

_____

7. Use appropriate non-verbal encouragement and verbal praise when the family reported using correct management strategies?

1 2 3 4 5

_____

8. Elicit the family's immediate objective related to asthma control and agree on a short-term goal?

1 2 3 4 5

_____

9. Review the long-term plan?

1 2 3 4 5

_____

10. Help the family plan for decision-making by encouraging them to keep a diary and/or develop strategies for handling potential problems (e.g. emergencies, participation at school, sports)?

1 2 3 4 5

_____

APPENDIX 4

COMMON PEDIATRIC CODING QUESTIONS & ANSWERS

Q. What is the proper way to code when a child comes in for a preventive medicine visit with a problem-oriented visit?

A. You can report a new patient preventive medicine visit and a new patient problem-oriented visit when performed at the same encounter. Make sure that the required key components for a new patient office/outpatient encounter (3 of 3 or time) are met and documented! Do not report a separate problem-oriented evaluation and management (E/M) service with modifier **25** when a problem encountered during a preventive medicine visit is insignificant (e.g., minor diaper rash, stable chronic problem, renewal of prescription medications) or does not require additional work to perform the required key components.[2]

Q. I often hear about the "bell curve" in relation to E/M codes. How do we know if our physicians are under-coding or over-coding their services?

A. Pediatricians frequently under-code their services. This means that their revenue is less than it should be. When general pediatricians analyze how many times they bill 99211, 99212, 99213, 99214, and 99215 in a given year, they should have a bell curve distribution. Pediatricians should be reporting 99213 more than any other code. Specifically, pediatricians should be reporting 99211 5% of the time, 99212 20% of the time, 99213 50% of the time, 99214 20% of the time, and 99215 5% of the time. Not all physicians will follow this bell curve exactly. There are certainly many practices (especially subspecialists) that will have curves skewed either up or down the bell shape depending on their scope of practice. Some pediatricians may see a larger number of children with special needs, justifying a shift in the curve (more 99214 and fewer 99213). This must be supported with ELM documentation and diagnoses to justify higher-level coding.[1]

Q. Can I use time as the key factor in determining the appropriate level of service for all E/M codes (99201–99499)?

A. Time can be used as the key factor in the following CPT codes that include a "typical time" right in the code descriptor: 99201–99215, 99221–99233, 99241–99255, 99341–99350. These codes are considered "time-based" E/M codes and, therefore, time can be used as the key factor for each of them. Time becomes a key factor when counseling and/or coordination of care account for more than 50% of the face-to-face time with the patient. When this situation occurs, it is necessary to enter the total duration of counseling and/or coordination of care into the clinical notes, as well as a description of the care that took place. Level of service is determined by comparing the total time of the visit with the typical time listed in the descriptor (that is, you'd have to have a 25-minute visit where counseling and/or coordination of care is at least 13 minutes to code a 99214. Unless counseling and coordination of care dominate the visit, the history, physical examination, and medical decision making remain the key factors in selecting a code. Face-to-face time is defined as the amount of time the physician spends in the room with the patient. It does not include the nurse time. In hospital encounters, the time listed as floor time is defined as the amount of time the physician spends not only at the patient's bedside, but also on the unit (communicating with nurses and family members, writing notes, reviewing laboratory tests, and so on). [1]

Q. When can primary care physicians use consultation codes 99241–99245?

A. A consultation is a type of service provided by a physician whose opinion or advice regarding the evaluation or management of a specific problem is requested by another physician or other appropriate source. A consultant may initiate diagnostic and therapeutic services at the same or subsequent visits. The request for the consultation may be made in writing or verbally as long as the request is documented in the record. However, the report to the referral source must be written. The request for the consultation may come from the physician or other appropriate source; therefore, a school psychologist, teacher, or institution such as the health department could be the referral source. Within a group practice, a physician with special expertise (e.g., dermatology), can be consulted and bill as a consultation as long as it is understood that a written report will be transmitted to the referring physician and that the patient will be returned to the referring physician for ongoing care (that is, the patient is not merely switching providers within a practice). Note, as of January 1, 2010, Medicare and Medicaid and some commercial payers no longer accept consultation codes. [1]

Q. Should a consultation code be used if the school requests that a child be seen by the pediatrician?

A. Yes, it would be appropriate to use a consultation code if specific criteria are met. A consultation is a type of service provided by a physician at the request of another physician or "other appropriate source" (including schools, juvenile courts, nurse practitioners). In this example, if the school requested the consultation, you should use the office consultation codes (99241–99245). It is important that the referral source be clearly documented and that a report be transmitted back to the referral source. Normally, a note from the teacher, sent home with a child, to alert a parent to an acute medical concern, would not be treated as a consultation. [1]

Q. We occasionally have parents who come in to discuss their child's problem with the pediatrician without the patient being present. Can we code for this?

A. Pediatricians spend a great deal of time dealing with families who have children with health risk issues such as obesity, developmental concerns, and children with special health care needs. Many times the parent will come in to discuss these issues without the child being present during the visit. It is appropriate for the pediatrician to report this service. Typically, the history, examination, and medical decision making are the key factors in determining the level of E/M service you choose. However, when counseling and/or coordination of care account for more than 50% of the face-to-face time with the patient and/or family, time becomes the key factor in determining which level of E/M service you choose. In this case, all of the time is spent in counseling with the family. It is important that you document your service and the time spent with the parent. Time indicators are as follows: 99211 (5 minutes), 99212 (10 minutes), 99213 (15 minutes), 99214 (25 minutes), and 99215 (40 minutes). CPT clearly states that the time the physician spends can be with the patient and/or family (including legal guardians, foster parents). Check with payers as their rules regarding patient presence may differ. [1]

Q. Is there a CPT code for asthma education?

A. There is not a specific code for asthma education. If the physician provides the counseling, education, or training to an individual, report the appropriate E/M service code. If a physician provides counseling and education in a group setting, report code 99078. These services can be reported the same day as a physician E/M service if it is significant and separately identifiable.

Apply modifier 25 to the E/M visit. When reporting an E/M service based on time, medical record documentation must reflect the total face-to-face time spent, the total time spent in counseling/coordination of care, and a summary of the issues discussed.[2]

Q. Parents often bring in forms for the physician to fill out. This is very time consuming, and I was wondering if I could charge for this service.

A. Yes, it is appropriate to report this service. The CPT code 99080 is for special reports such as insurance forms, more than the information conveyed in the usual medical communications or standard reporting form. As stated in the code descriptor, this code is used for things such as insurance forms (for life insurance or new health insurance). The most common forms physicians have to fill out are sports and camp forms. You can try reporting 99080, but chances are you will not get reimbursed for this. If the carrier says it is not a covered service, this allows you to be able to charge the patient if the patient filled out a waiver agreeing to pay for this non-covered service. However, most physicians consider sports and camp forms "usual medical communications or standard reporting forms." [1]

Q. I noticed the 2008 CPT book published codes for telephone care provided by a "qualified nonphysician health care professional." Our practice uses registered nurses to answer our office and after-hours patient telephone calls. Can we report these codes to charge for our nurse telephone triage? Specifically, can we report the codes when one of our registered nurses returns an advice call about a 4-year-old with fever and cough? [1]

A. In 2008, new CPT codes (98966, 98967, 98968) were published that allow for the billing of clinical telephone calls managed by "qualified nonphysician health care professionals." Whether nurses are considered "qualified nonphysician health care professionals" is the issue at hand.

If a nurse performs duties within the scope of his or her state's nurse practice act by performing a patient assessment over the phone, and then follows pre-approved standing orders (approved telephone triage guidelines), then it has been determined that the nurse meets the criteria of a "qualified nonphysician health care professional."

Most state nurse practice acts do not allow registered nurses (RNs) to develop a care plan after performing an assessment. However, RNs are allowed to implement plans created or ordered by a physician. Therefore, as long as the RN follows physician-approved telephone triage guidelines while developing a plan (advice) for the caller, then he/she meets the criteria of a "qualified nonphysician health care professional."

Note the importance of proper documentation that the RN performs an assessment and utilizes an approved telephone triage guideline during the telephone call. The nurse's calls should be archived and undergo physician review and quality assurance.

The table in this manual shows the proper codes, qualifications, rules and descriptors to be used with RN telephone calls. The call must not pertain to an office visit in the preceding seven days involving the same or similar problem, nor lead to an office visit within the next 24 hours or next available appointment. These types of calls are considered part of the "global period" related to an office visit. Payment for telephone services within this global period are bundled into the office visit payment.[1]

Q. Can CPT codes 98966–98968 be used when one of our medical assistant staff returns an advice call about a child with an asthma exacerbation?

A. A medical assistant, as well as any other nonclinical staff, does *not* meet the criteria of a "qualified nonphysician health care professional." Therefore, a fee cannot be submitted for triage and advice calls performed by these individuals.[1]

Q. When to use Level II codes:[1]

A. Most pediatricians and pediatric coders are familiar with the many Current Procedural Terminology Level I modifiers, such as modifier 25 or modifier 59. However, pediatric practices may not be as familiar with Level II (HCPCS/National) modifiers because they may consider them Medicare modifiers and may not see the benefit of their use.

It is important to recognize that Level II modifiers are not limited to Medicare patients. In fact, many state Medicaid plans and private payers require the use of Level II modifiers. Pediatricians should be aware of some Level II modifiers that may be required by the insurance carriers they bill, including Medicaid.

Many are aware of modifier QW, which is used to indicate that a Clinical Laboratory Improvement Amendments (CLIA) waived test was performed in a CLIA waived facility. Some of the less familiar Level II modifiers that may be of importance to pediatric offices are as follows:

GD – Units of service exceed medically unlikely edit value and represents reasonable and necessary services
HS – Family/couple without client present
Q5 – Service furnished by a substitute physician under a reciprocal billing arrangement
SC – Medically necessary service or supply
SK* – Member of a high-risk population
SL – State-supplied vaccine
SY* – Persons who are in close contact with member of a high-risk population
TL – Early intervention/individual family service plan
TM – Individualized education program (IEP)
TR – School-based IEP services provided outside the public school district responsible for the student
TU – Special payment rate, overtime
TV – Special payment rate, holiday/weekends
UH – Services provided in the evening
UJ – Services provided at night
*Use only with immunization codes

Q. Modifier 25 vs. modifier 59: which to choose?

A. There has been much confusion over the difference between and use of modifiers 25 and 59. There was so much uncertainty, in fact, that in 2008, the description for modifier 59 was edited in the *Current Procedural Terminology* (CPT) manual to clarify the distinction between the two.

It is important to understand the use of these modifiers since they probably are the top two

modifiers you will use in your practice when billing for multiple services on the same date. The modifiers are described as follows:

Modifier 25 is used to indicate a significant and separately identifiable evaluation and management (E/M) service by the same physician on the same day another procedure or service was performed. It may be necessary to indicate to a payer that on the day a procedure or service was performed, the patient's condition required a significant and separately identifiable E/M service above and beyond the other service provided or beyond the usual preoperative and postoperative care associated with the procedure that was performed. Modifier 25 may be appended only to a code found in the E/M section of the CPT manual.

Modifier 59 is used to indicate a distinct procedural service. Under certain circumstances, it may be necessary to indicate that a procedure or service was distinct or independent from other *non-E/M* services performed on the same day. Modifier 59 is the modifier of last resort, meaning it should be used only when no other established modifiers are more appropriate. You should *never* append modifier 59 to a code found in the E/M section of the CPT manual.[1]

Q. A 3-year-old patient presents to the office for a sick visit. The pediatrician performs a full E/M service (99214) and determines that a nebulizer treatment (94640) is needed. She also decides to order a nebulizer machine for the patient's home. She asks her nurse to demonstrate to the mom how to use, clean and operate the nebulizer machine (94664). How should the pediatrician report all services in order to be paid?

A. The physician would report 99214**–**25** (Office or other outpatient E/M visit – Level 4), 94640 (Pressurized or nonpressurized inhalation treatment for acute airway obstruction or for sputum induction for diagnostic purposes) and 94664**–**59 (Demonstration and/or evaluation of patient utilization of an aerosol generator, nebulizer, metered-dose inhaler or IPPB device).

Since the physician is reporting two non-E/M services (94640 and 94664) and she is trying to relay to the payer that they are two distinct procedural services, the 59 modifier would be used. You should always place the 59 modifier on the "lesser" of the two procedures or the one that would be considered inclusive of the other procedure. In some cases, the 25 modifier will be required on the E/M service (see above). Since the physician is indicating that an E/M service was significant and separate from a procedure or procedure(s) (94640 and 94664), the 25 modifier could be reported on the E/M service (99214).[1]

Sources:

1. American Academy of Pediatrics (1999-2010). Coding Corner. *AAP News, 15*(5)*, 16*(3)*, 18*(6)*, 19*(3)*, 20*(2)*, 20*(5), *30*(2)*, 30*(7), *31*(6). Retrieved from http://aapnews.aappublications.org/

2. Committee on Coding and Nomenclature - American Academy of Pediatrics. (2010). *Coding for Pediatrics*. Elk Grove Village: American Academy of Pediatrics.

How to Use Modifiers Effectively

Attach these modifiers to CPT codes when two or more services are provided for the same patient on the same date by the same provider.

25- Attach to an E/M code when reporting other services provided on the same day (e.g., E/M service plus spirometry).

76- Attach to procedure codes when the same service is performed multiple times on the same date (e.g., multiple nebulizer treatments).

59- Attach to procedures that should be billed separately from the office visit and other procedures (e.g., nebulizer treatment and nebulizer teaching same day).

CPT Codes for Other Asthma Services

Pulse Oximetry (94760)

Spirometry (94010)

Nebulizer Treatment (94640)

Teaching: Nebulizer, Metered-Dose Inhaler, etc. (94664)

Flu Vaccine (90655 through 90668)

Prolonged Physician Services (99354, 99355)

Coding Based on Complexity

New vs. Established Patients

New patients

For a new patient, all 3 components (history, examination, and medical decision making) must be documented at the selected level. A *new* patient is one who has received no face-to-face services by the physicians of a like specialty in the same group for the past three years.

Established patients

For an *established* patient, only 2 of the 3 components must be at the selected level.

CPT Codes for New Patients' Office Visits

Code:	**Level 1 99201**	**Level 2 99202**	**Level 3 99203**	**Level 4 99204**	**Level 5 99205**
History:	Problem focused	Expanded problem focused	Detailed	Comprehensive	Comprehensive
Exam:	Problem focused	Expanded problem focused	Detailed	Comprehensive	Comprehensive
Medical Decision Making:	Straight forward	Straight forward	Low complexity	Moderate Complexity	High complexity
Time:	10 minutes	20 minutes	30 minutes	45 minutes	60 minutes

CPT Codes for Established Patients' Office Visits

Code	**Level 1 99211**	**Level 2 99212**	**Level 3 99213**	**Level 4 99214**	**Level 5 99215**
History:	Not required	Problem focused	Expanded problem focused	Detailed	Comprehensive
Exam:	Not required	Problem focused	Expanded problem focused	Detailed	Comprehensive
Medical Decision Making:	Not required	Straight forward	Low complexity	Moderate Complexity	High complexity
Time:	5 minutes	10 minutes	15 minutes	25 minutes	40 minutes

Example – Level 4 (99214) Established Patient Office Visit Based on Complexity

History-Detailed

- HPI with 4 or more elements
- ROS of 2 to 9 systems
- Either family, social or past medical history

Exam-Detailed

- 5 to 7 areas

Medical Decision Making

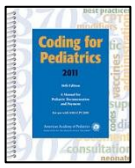
- Moderate complexity

**Note that the types of components required to meet the different levels of complexity for a new patient are different from those for an established patient. For example, a level 4 new patient requires a comprehensive history whereas a level 4 established patient only requires a detailed history.

Documentation, Coding, and Reimbursement Tools

AAP Coding Hotline for Questions- aapcodinghotline@aap.org

AAP News - Coding Corner (monthly)
http://aapnews.aappublications.org/cgi/collection/coding_corner



Coding for Pediatrics, 2011 (AAP)

AAP Pediatric Coding Newsletter Online
http://coding.aap.org/

AAP Section on Administration and Practice Management (SOAPM)
http://www.aap.org/sections/soapm/soapm_home.cfm

APPENDIX 5

Summary of Guidelines Implementation Panel (GIP) Priority Messages and the Underlying EPR-3 Recommendations

Message: Inhaled Corticosteroids Inhaled corticosteroids are the most effective medications for long-term management of persistent asthma, and should be utilized by patients and clinicians as is recommended in the guidelines for control of asthma. **EPR-3 Recommendation:** The Expert Panel recommends that long-term control medications be taken on a long-term basis to achieve and maintain control of persistent asthma, and that inhaled corticosteroids (ICSs) are the most potent and consistently effective long-term control medication for asthma. (Evidence A).	**Message: Asthma Control** At planned follow-up visits, asthma patients should review level of control with their health care provider based on multiple measures of current impairment and future risk in order to guide clinician decisions to either maintain or adjust therapy. **EPR-3 Recommendation:** The Expert Panel recommends that every patient who has asthma be taught to recognize symptom patterns and/or Peak Expiratory Flow (PEF) measures that indicate inadequate asthma control and the need for additional therapy (Evidence A), and that control be routinely monitored to assess whether the goals of therapy are being met – that is, whether impairment and risk are reduced (Evidence B).
Message: Asthma Action Plan All people who have asthma should receive a written asthma action plan to guide their self-management efforts. **EPR-3 Recommendation:** The Expert Panel recommends that all patients who have asthma be provided a written asthma action plan that includes instructions for: (1) daily treatment (including medications and environmental controls), and (2) how to recognize and handle worsening asthma (Evidence B).	**Message: Follow-up Visits** Patients who have asthma should be scheduled for planned follow-up visits at periodic intervals in order to assess their asthma control and modify treatment if needed. **EPR-3 Recommendation:** The Expert Panel recommends that monitoring and follow up is essential (Evidence B), and that the stepwise approach to therapy – in which the dose and number of medications and frequency of administration are increased as necessary (Evidence A) and decreased when possible (Evidence C, D) be used to achieve and maintain asthma control.
Message: Asthma Severity All patients should have an initial severity assessment based on measures of current impairment and future risk in order to determine type and level of initial therapy needed. **EPR-3 Recommendation:** The Expert Panel recommends that once a diagnosis of asthma is made, clinicians classify asthma severity using the domains of current impairment (Evidence B) and future risk (Evidence C, and D*) for guiding decisions in selecting initial therapy. **Note: While there is not strong evidence from clinical trials for determining therapy based on the domain of future risk, the Expert Panel considers that this is an important domain for clinicians to consider due to the strong association between history of exacerbations and the risk for future exacerbations.*	**Message: Allergen and Irritant Exposure Control** Clinicians should review each patient's exposure to allergens and irritants and provide a multipronged strategy to reduce exposure to those allergens and irritants to which a patient is sensitive and exposed, i.e., that make the patient's asthma worse. **EPR-3 Recommendation:** The Expert Panel recommends that patients who have asthma at any level of severity be queried about exposure to inhalant allergens, particularly indoor inhalant allergens (Evidence A), tobacco smoke and other irritants (Evidence C), and be advised as to their potential effect on the patient's asthma. The Expert Panel recommends that allergen avoidance requires a multifaceted, comprehensive approach that focuses on the allergens and irritants to which the patient is sensitive and exposed – individual steps alone are generally ineffective (Evidence A).

6 Steps to Asthma Control

Work with your child's doctor to help your child breathe easier

1

Describe your child's asthma to the doctor

Tell your doctor about your child's asthma and how it affects his or her life. Be sure to tell your doctor if allergens and irritants in your home or outdoors make your child's asthma worse. Tell your doctor about all symptoms so it can be determined how severe your child's asthma is and if it is in control. Your child's doctor will listen carefully to you and ask about your child's day-to-day management of asthma at home and at school.

2

Listen to and discuss the doctor's recommendations

Inhaled corticosteriods are "controller" medicines. They are the most helpful medicines for taking care of persistent asthma or asthma that affects your child every day. Work with your doctor to determine which medicines, including "controller" medicines, are right for your child.

3

Create an asthma action plan

Work with your child's doctor to create an asthma action plan (also called a treatment plan). The asthma action plan will lay out the treatment recommendations and tell you how to take care of your child's asthma on a day-to-day basis. Your child's doctor will write down an asthma action plan for you.

4

Follow the doctor's recommendations at home and at school

The asthma action plan will help you see if your child's asthma gets worse and will tell you what to do to take care of your child's asthma. Your child's doctor will provide you with information so that you can make decisions at home. The doctor will teach you and your child about asthma and discuss the short-term goals of your therapy.

5

Inform your child's doctor about how the treatment plan is working

Be sure to schedule follow-up appointments with your child's doctor at regular times. Talk to your child's doctor about how your child is doing now and how to do better in the future. Discuss any problems your child has with taking his or her medicines and how asthma affects daily activities. Your child's doctor will update the asthma action plan as needed.

6

Revise your asthma management practices as needed and continue to communicate with your child's doctor

Talk with your child's doctor when problems occur so that the asthma action plan can be revised as needed.

National Heart, Lung, and Blood Institute. National Asthma Education and Prevention Program. Guidelines Implementation Panel Report for: Expert Panel Report 3- Guidelines for the Diagnosis and Management of Asthma; December 2008. http://www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.pdf

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APPENDIX 7

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