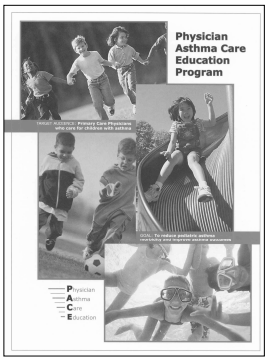
Presentation Slides



P hysician
A sthma
C are
E ducation

A program of the
Center for Managing
Chronic Disease,
University of Michigan.

Primary Care and Asthma

- Most common chronic disease of childhood
- Primary care providers are expected to manage most cases of asthma
- There are disincentives to frequent referral to specialists

Modern Paradox

- Understanding of the pathogenesis and treatment of asthma has increased
- Understanding the steps to control asthma has increased
- However, morbidity and mortality from asthma around the world is at an alarmingly high level

Some Possible Explanations

- Patients and families are not recognizing the symptoms of asthma
- Clinicians are not making the diagnosis
- Clinicians are either not providing state of the art care, or, if they are, patients are not adhering to the recommended programs

Barriers To Achieving Optimal Care

- Patients treat asthma as an acute episodic illness rather than a chronic disease
- Physicians assume that patients will put aside their own beliefs, concerns, and goals to follow the treatment plan.

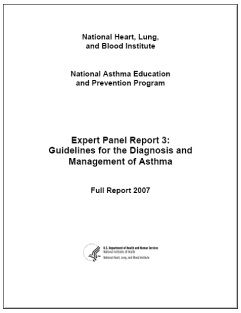
Key Points

1. The key elements of assessment and monitoring are severity, control, and responsiveness to treatment.
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 assessment of control and his/her written action plan for the patient.

Key Points

4. Good communication between patient and clinician helps identify patient concerns, makes patient teaching more effective and promotes patient self-confidence to follow the treatment plan
5. Patient education can be efficiently and effectively accomplished in several standard primary care visits

Guidelines

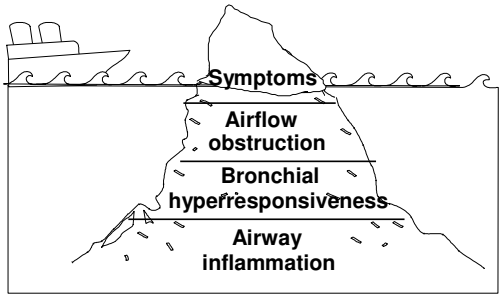

National Heart, Lung, and Blood Institute

National Asthma Education and Prevention Program

Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma

Full Report 2007

A Lot Going On Beneath The Surface



Benchmarks of good asthma control

- No coughing or wheezing
- No shortness of breath or rapid breathing
- No waking up at night
- Normal physical activities
- No school absences due to asthma
- No missed time from work for parent or caregiver

TREATMENT OF ASTHMA

Key Point #1

- The key elements of assessment and monitoring are severity, control, and responsiveness to treatment.

CLASSIFYING ASTHMA SEVERITY AND INITIATING TREATMENT IN CHILDREN 0-4 YEARS OF AGE

Assessing severity and initiating therapy in children who are not currently taking long-term control medication

Components of Severity		Classification of Asthma Severity (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 systemic corticosteroids, 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.			
Recommended Step for Initiating Treatment		**Step 1**	**Step 2**	**Step 3** and consider short course of oral systemic corticosteroids	
		In 2-6 weeks, depending on severity, evaluate level of asthma control that is achieved. If no clear benefit is observed in 4-6 weeks, consider adjusting therapy or alternative diagnosis.			

Key: EIB, exercise-induced bronchospasm

ASSESSING ASTHMA CONTROL AND ADJUSTING THERAPY IN CHILDREN 0-4 YEARS OF AGE

Components of Control		Classification of Asthma Control (0-4 years)		
		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.		
Recommended Action for Treatment		•Maintain current treatment •Regular follow up every 1-6 months •Consider step down if well controlled for at least 3 months	•Step up (1 step) and •Reevaluate in 2-6 weeks •If no clear benefit in 4-6 weeks, consider alternative diagnoses or adjusting therapy •For side effects, consider alternative treatment options	•Consider short course of oral systemic corticosteroids •Step up (1-2 steps), and •Reevaluate in 2 weeks •If no clear benefit in 4-6 weeks, consider alternative diagnoses or adjusting therapy •For side effects, consider alternative treatment options

Key: EIB, exercise-induced bronchospasm

CLASSIFYING ASTHMA SEVERITY AND INITIATING TREATMENT IN CHILDREN 5-11 YEARS OF AGE

Assessing severity and initiating therapy in children who are not currently taking long-term control medication

Components of Severity		Classification of Asthma Severity (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/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			
Recommended Step for Initiating Treatment		**Step 1**	**Step 2**	**Step 3, medium-dose ICS option** / **Step 3, medium-dose ICS or step 4** and consider short course of oral systemic corticosteroids	
		In 2-6 weeks, evaluate level of asthma control that is achieved, and adjust therapy accordingly			

Key: EIB, exercise-induced bronchospasm; FEV1, forced expiratory volume in 1 second; FVC, forced vital capacity; ICS, inhaled corticosteroids

Note: 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.

ASSESSING ASTHMA CONTROL AND ADJUSTING THERAPY
IN CHILDREN 5-11 YEARS OF AGE

Components of Control		Classification of Asthma Control (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/FEV	•>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 follow up.		
	Treatment-related adverse effects	Medication side effects can vary in intensity from none to very troublesome and worrisome. The level of intensity does not correlate to specific levels of control but should be considered in the overall assessment of risk.		
Recommended Action for Treatment		•Maintain current step. •Regular follow up every 1-6 months. •Consider step down if well controlled for at least 3 months.	•Step up at least 1 step and •Reevaluate in 2-6 weeks. •For side effects: consider alternative treatment options.	•Consider short course of oral systemic corticosteroids, •Step up 1-2 steps, and •Reevaluate in 2 weeks. •For side effects, consider alternative treatment options.

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

Note: 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.

CASE STUDIES OF ASTHMA SEVERITY

Case Study 1

A 3 year-old boy is brought by his mother for evaluation of worsening asthma symptoms.

He was diagnosed with asthma several months ago by your partner. The patient has been using an inhaled short-acting bronchodilator (β_2-agonist) as needed for symptoms of wheezing and shortness of breath. The patient and his mother now report that he has daytime symptoms approximately 3 times per week but no nighttime symptoms.

What level of control does this patient have?

Case Study 2

A 19 year-old college student comes in for a routine follow-up visit for asthma.

She was diagnosed when she was 8 years old. She "feels fine" and is not bothered by her asthma. On further questioning, you learn that she is doing poorly in her first class of the day because she has difficulty waking up in time to attend lecture. She states that sometimes this results from staying up late to talk with friends, but at other times she "tosses and turns all night coughing." She thinks that she is having trouble sleeping twice a week.

What level of control does this patient have?

Case Study 3

A 6 year-old boy with a history of asthma comes to your office for the first time in August for a school physical exam.

He has no asthma symptoms now, but his mom states that usually "around the change of seasons" he starts wheezing and coughing often. The symptoms occur everyday, but only during the day.

What level of control does this patient have?

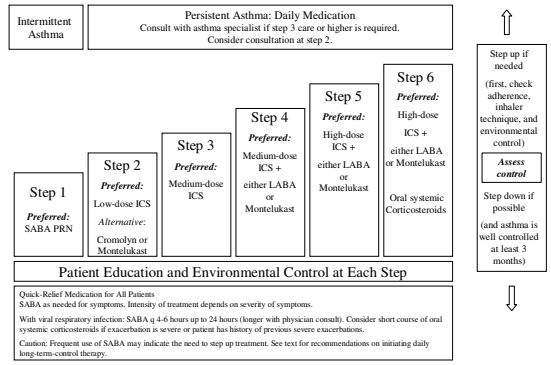
Key Point #2

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

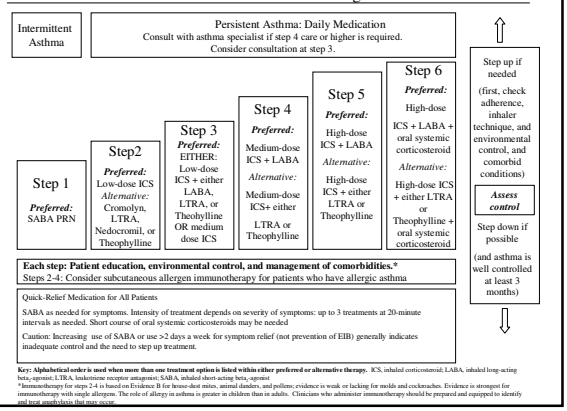
Selecting Appropriate Medications

- Quick-relief medications
  - Short-acting beta-agonists
  - Inhaled anticholinergics
  - Systemic corticosteroids
- Long-term control medications
  - Daily inhaled corticosteroids
  - Leukotriene modifiers
  - Long-acting, inhaled β_2-agonists (should not be used alone)
  - Cromolyn sodium and nedocromil

Stepwise Approach for Managing Asthma in Children 0-4 Years of Age



Stepwise Approach for Managing Asthma in Children 5-11 Years of Age



Inhaled Steroids In Children

- Most potent and effective long-term anti-inflammatory medications currently available
- Reduce the need for quick-relief medications
- Fewer side effects than steroid tablets or syrup
- Long term studies have failed to demonstrate long-term inhibition of growth.
- Rinsing the mouth after inhaling steroids and using spacer devices decrease local side effects and systemic absorption.

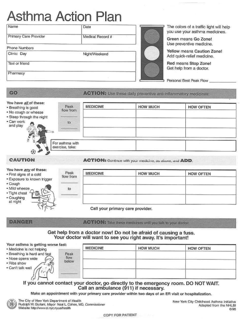
Key Point #3

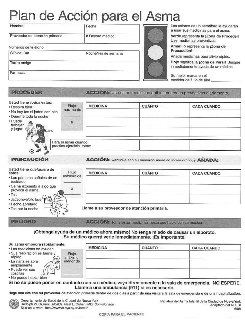
- Because asthma symptoms are variable, families need to recognize symptoms and adjust medications at home according to the clinician's assessment of control and his/her written action plan for the patient.

Key Features of an Asthma Action Plan

- Written plan should be keyed to severity and level of control and should include:
  - Daily management as well as early recognition and actions for exacerbations
  - Medication names (trade and generic)
  - How much to take and when to take it

Asthma Action Plan Examples





SAMPLE LONG TERM TREATMENT PLAN

FOR MILD PERSISTENT ASTHMA

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
PEAK FLOW (% predicted) FEV_1/FVC	Above 80%	75 to 80%	Below 75%	Over 80% for 3 months	
MEDICATION *Reliever:* Inhaled short-acting $beta_2$-agonist Albuterol	2 puffs as needed				
Controller: 1) Inhaled low dose corticosteroid Beclomethasone, 42 mcg	1-4 puffs 2x/day				
or 2) Leukotriene modifier					
Corticosteroid Tablet or Syrup	0				

SAMPLE LONG TERM TREATMENT PLAN

FOR MILD PERSISTENT ASTHMA

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
PEAK FLOW (% predicted) FEV1/FVC	Above 80%	75 to 80%	Below 75%	Over 80% for 3 months	
MEDICATION *Reliever:* Inhaled short-acting $beta_2$-agonist 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	2 puffs 5-10 minutes before exercise
Controller: 1) Inhaled low dose corticosteroid Beclomethasone, 42 mcg	1-4 puffs 2x/day	1-4 puffs 2x/day	1-4 puffs 2x/day	0	
or 2) Leukotriene modifier				1 tablet* per 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

Review of Key Points Covered

1. The key elements of assessment and monitoring are severity, control, and responsiveness to treatment.
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 assessment of control and his/her written action plan for the patient.

Major Indoor Triggers

- Tobacco smoke
- Dust mites
- Animal dander
- Cockroach allergens
- Indoor mold
- Wood smoke
- Formaldehyde
- Volatile organic compounds

Key Point #4

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

Background

- Excellence in medical treatment is worthless if the patient doesn't take the medicine
- Compliance is closely linked to clinician communication and patient education
- Most clinicians believe they are good communicators, but most patients feel clinician communication and education is inadequate

Recent Medicine Adherence Studies

Jonasson et al 2000	Inhaled budesonide Placebo by dose count	48% 32%	Adherence Adherence
Bender et al 2000	Inhaled steroid by child/mother report by canister weight by electronic doser	 80% 69% 50%	 Adherence Adherence Adherence

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 compliance
- Communicating well and providing education are as important as prescribing the right medicine

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

Health Belief Model

These beliefs influence willingness to follow preventive or therapeutic recommendations

- I am **susceptible** to this health problem
- The threat to my health is **serious**
- The **benefits** of the recommended action outweigh the **costs**
- I am **confident** that I can carry out the recommended actions successfully

Beliefs About Susceptibility

Some families resist accepting the diagnosis because they believe that:

- Because an older relative was crippled by asthma, their child will also be crippled
- Asthma is psychologically caused or feigned by the child

Resisting the diagnosis reduces the likelihood that the family will follow the treatment plan

Beliefs About Seriousness

- If the family thinks asthma is not serious, they are less likely to follow the treatment plan
- If the family overestimates the seriousness of asthma, they may follow the plan, but prevent the child from taking part in normal physical activities

Beliefs About Benefits and Costs

The benefits of therapy, obvious to the clinician, are often unclear to patients or irrelevant to their personal goals

Perceived costs of therapy include:

- Financial burden of care
- Fear that medicines will harm the child
- Regimen seen as time-consuming and hard to carry out

Fears About Asthma Medicines

39% Believe medicines are addictive

36% Believe medicines are not safe to take over a long period

58% Believe regular use will reduce effectiveness

Beliefs About Ability to Carry Out Recommendations

- Research in psychology shows that when you are confident you can do something successfully:
  - You do it more often
  - You are more persistent in the face of difficulty.
- Many families lack confidence that they can manage an asthma attack at home

Implications

Therefore, the clinician must establish open communications that permit these health beliefs to be identified and discussed.

Barriers To Effective Communications

Studies show that patients often:

- Feel they are wasting the clinician's valuable time
- Omit details they deem unimportant
- Are embarrassed to mention things they think will make them look bad
- Don't understand medical terms
- May believe the clinician has not really listened and therefore doesn't have the information needed to make a good treatment decision

Video Presentation

Strategies

- Non-verbal attentiveness
- Addressing immediate concerns
- Reassuring messages

GOAL/PURPOSE

- *Relaxing and reassuring patients so they pay attention to what is being said.*

Strategies

- Interactive conversation
- Eliciting underlying fears

GOAL/PURPOSE

- *Improving the exchange of ideas and feelings and gathering information needed for diagnosis and treatment decisions*

Strategies

- Tailoring messages
- Planning for decision making
- Goal setting

GOAL/PURPOSE

- *Preparing patients to carry out the treatment at home*

Strategies

- Non-verbal encouragement
- Verbal praise

GOAL/PURPOSE

- *Building self confidence needed to carry out the plan.*

Key Point #5

Good communication and patient education can be efficiently and effectively accomplished in several standard primary care visits

Efficacy Trial (MD-Asthma Study)

Design:	Controlled trial
Intervention:	Asthma education seminar
Participants:	83 pediatricians
Evaluation:	Asthma care of 637 patients (2 year follow-up)

Results from Parents

- Parents reported that the intervention pediatrician
  - was more reassuring
  - asked more about asthma management at home
  - was more likely to set a goal for child to be active
- Parents reported increased use of written plans

Results from Pediatricians

- Compared with controls, physicians who received the intervention showed:
  - Increased use of written plans
  - Increased use of inhaled anti-inflammatory therapy
  - More attention to patient fears
  - No additional time for patient visit

Patient Outcomes

- The study allowed separation of the effects of drug therapy from the effects of good communication and patient education
- Patients whose physicians provided education plus inhaled corticosteroids did better than those who received corticosteroids alone:
  - Reduced emergency room visits
  - Reduced hospitalizations
  - Reduced days with symptoms

Effectiveness Trial (PACE Study)

Design:	Controlled trial
Intervention:	Asthma education seminar
Participants:	101 primary care providers
Evaluation:	Asthma care of 870 patients (1 year follow-up)

Results

- Pediatricians were more confident in
  - developing short term goals
  - reviewing long term plans
- Parents reported that the intervention pediatrician
  - tried to find out about parents' biggest concerns
  - was more likely to encourage child to be active
  - was more likely ask if child was meeting goals

$p<0.05$ for all analyses

Patient Outcomes

- Patients whose physicians participated in the PACE seminar had
  - Reduced emergency room visits
  - Reduced days of daytime symptoms in the Fall
  - Reduced days with decreased activity due to asthma (Spring, Summer, Winter, & Fall)
- No impact on average patient visit time

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
- Good communication and patient education can be efficiently and effectively accomplished in several standard primary care visits

Session 2, Segment 1

Patient Education Messages

Key Points

1. The key elements of assessment and monitoring are severity, control, and responsiveness to treatment.
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 assessment of control and his/her written action plan for the patient.

Key Points

4. Good communication between patient and clinician helps identify patient concerns, makes patients teaching more effective and promotes patient self-confidence to follow the treatment plan
5. Patients education can be efficiently and effectively accomplished in several standard primary care visits

Session 2, Segment 2

Discussion of Program Cases

Case Presentation #1

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 had four such colds in the last year; the most recent occurred a month ago. Jennifer does not have any symptoms now, but Mrs. Wallace is worried and asks you for help.

- What treatment plan would you recommend to Mrs. Wallace for Jennifer's asthma?
- What do you think would be the greatest challenge in getting Mrs. Wallace to follow the treatment plan?

Case Presentation #2

Tom Platt is six years old and coughs and wheezes several times a week. The symptoms occur when he runs or is near a cat, but are mild and usually subside within an hour. The Platt family does not have any pets in their 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.

- What treatment plan would you recommend to Mrs. Platt for Tom's asthma?
- What do you think would be the greatest challenge in getting Mrs. Platt to follow the treatment plan?

Case Presentation #3

Angela Mendez is 10 months old, and has repeated episodes of wheezing and difficulty breathing. When you prescribed albuterol syrup, her symptoms got better, but she was fussy, couldn't sleep, and vomited. Mrs. Mendez is getting frustrated. You have already completed an extensive work up and have ruled out other causes for the breathing difficulties.

- What treatment plan would you recommend to Mrs. Mendez for Angela's asthma?
- What do you think would be the greatest challenge in getting Mrs. Mendez to follow the treatment plan?

Session 2, Segment 3

Coding and Reimbursement

Goals

- To demonstrate how quality asthma education and counseling can be documented and coded
- To help physicians receive appropriate reimbursement for the quality asthma care they provide

Education and Counseling should be Properly Reimbursed

- Pediatricians generally undercharge
- Documentation and coding not covered in residency curricula
- Perception that it is not important in capitated arrangements

Topics for this Segment

- What has to be documented in the chart
- What diagnosis and billing codes to submit
- Other codes and rules

Definitions

CPT Code: "what we did"

Current Procedural Terminology

Codes have relative value based on resources used

ICD 9-CM Code: "what was the problem"

International Classification of Diseases

Modified for United States payment systems

Codes for the problem or situation

Selecting the CPT Code

- The asthma visit will fall under one of five different CPT codes
- Coding should be based on what was performed and documented.
  - "If it wasn't documented, it didn't happen."
  - Poor documentation can lead to denial of payment by carriers

Two General CPT Coding Strategies

- Select the CPT Code based on complexity
  - history (4 types)
  - exam (4 types)
  - medical decision making (4 types)
- Select the CPT Code based on time

Coding Based on Complexity: History

- Four levels of history
  - Problem Focused
  - Expanded Problem Focused
  - Detailed
  - Comprehensive

Coding Based on Complexity: Exam

- Four levels of exam
  - Problem Focused
  - Expanded Problem Focused
  - Detailed
  - Comprehensive

Coding Based on Complexity: Medical Decision Making

Level of Decision	Number of Diagnoses	Amount of Data	Complication Risk
Straight-forward	Minimal	Minimal or None	Minimal
Low complexity	Limited	Limited	Low
Moderate complexity	Multiple	Moderate	Moderate
High complexity	Extensive	Extensive	High

CPT code based on complexity

- For a new patient, each of the 3 components determine which of five CPT codes to select
- For an established patient, only 2 of the 3 components must be performed to the degree specified for the CPT code.
- The least involved component will determine the overall CPT code

CPT Codes for the New Patient

Code	Level 1	Level 2	Level 3	Level 4	Level 5
History	Problem focused	Expanded problem focused	Detailed	Comprehensive	Comprehensive
Exam	Problem focused	Expanded problem focused	Detailed	Comprehensive	Comprehensive
Decision Making	Straight forward	Straight forward	Low complexity	Moderate Complexity	High complexity

CPT Codes for the Established Patient

Code	Level 1	Level 2	Level 3	Level 4	Level 5
History	Not required	Problem focused	Expanded problem focused	Detailed	Comprehensive
Exam	Not required	Problem focused	Expanded problem focused	Detailed	Comprehensive
Decision Making	Not required	Straight forward	Low complexity	Moderate Complexity	High complexity

Level 4 Visit Based on Complexity for the Established Patient

History
- H.P.I with 4 or more elements
- ROS of 2 to 9 systems
- Either family, social or past medical history

Exam
- 5 to 7 areas

Medical Decision Making
- moderate complexity

Coding Based on Time

- Time is a factor only when counseling or coordination of care accounts for greater than 50% of the total face-to-face time with a patient.
- Document
  - total duration of counseling
  - total duration of visit
  - topics covered for counseling or coordination

Coding Based on Time

	Total Time Spent with Patient (Minutes)				
	Level 1	Level 2	Level 3	Level 4	Level 5
Established Patient	5	10	15	25	40
New Patient	10	20	30	45	60

The Asthma f/u visit for Counseling

- Scenario: Dr. Esser's follow-up visit (15 min)
- History: 1 or 2 months after first asthma attack
- Exam: No distress. Clear lung exam.
- Decision-making: Straight-forward; albuterol p.r.n. and long-term controller. Discussed what happens in asthma attack, how medicines work, when to call doctor, established action plan, patient demonstrated how to use MDI with spacer.

What was Documented

- "JC is 9 y.o girl recently diagnosed with asthma. Doing well. Some daytime/nighttime sx. PE: Alert, no distress. T=37.3 C. Wt: 35.2 kg. Lungs clear. A/P: Mild persistent asthma, Discussed meds & management. Albuterol p.r.n.; low dose steroid 2 puffs, bid; f/u in 1 month."

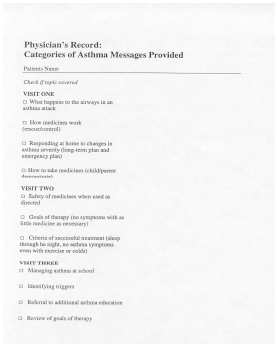
Strategy: Coding Based on Time

- Based on Complexity
  - History -- Level 2
  - Exam -- Level 2
  - Decision-Making -- Level 2 or 3
  - Overall: Level 2
- Based on Time
  - Documentation of some topics covered
  - However: No documentation of overall or counseling time

Effect of Documentation

- "JC is 9 y.o girl recently diagnosed with asthma. Doing well. Some daytime/nighttime sx. PE: Alert, no distress. T=37.3 C. Wt: 35.2 kg. Lungs clear. A/P: Mild persistent asthma, Discussed meds & management. Albuterol p.r.n. low dose steroid 2 puffs, bid; f/u in 1 month f/u in 1 month.
- *Total time 15 min, 10 min spent discussing* what happens in asthma attack, how meds work, established action plan, pt. demonstrated how to use MDI with spacer."

Physician's Record



Physician's Record:
Categories of Asthma Messages Provided

Patients 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 *Assess/evaluate*)

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 he 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

Coding Based on Time

- In general for asthma follow-up visits where education is main point of visit, coding based on time more accurately captures the value of what was accomplished
- If counseling takes up greater than 50% of session, visit can be coded based on time
- Documentation and coding makes a difference

Short-term Effects

- A visit for established patient could be a Level 3 visit if you spent total time of 15 minutes and >7.5 minutes was spent in counseling regardless of level of history and physical examination
- A visit for established patient could be a Level 4 visit if you spent total time of 25 minutes and >12.5 minutes was spent in counseling regardless of level of history and physical examination

Asthma Teaching Code

- 94664: Revised to read: Demonstration and/or evaluation of patient utilization of an aerosol generator, nebulizer, metered dose inhaler or IPPB device.
  - can be reported only one time per day
  - can be claimed when office staff perform demo under supervision

Overall Effects

- Assume
  - 1250 patients in panel
  - 100 asthma patients (8% prevalence)
  - Each patient with just two counseling sessions
- Poor documentation and coding
  - Level 2 (Complexity) could be Level 4 (Time)
  - $69.19 lost per visit
  - $13,838.00 lost per year

For the Asthma Counseling Visit

- CPT coding strategies & documentation requirements
- ICD-9 code selection
- Modifier (-25) codes

ICD-9 Codes

- Describes the diagnosis for the visit (3 to 5 digits)
- In general, a five digit diagnosis has greater likelihood of reimbursement
- Don't forget to add other diagnosis to help support the severity of illness (hypoxemia)

How to Use Modifiers Effectively

25) Used on outpatient visits for two separate services

76) Used on procedures when the same service is performed multiple times

59) Used on procedures that should be billed separately from the office visit and other procedures

25 Modifier

- Only used on outpatient visits
  - Example: Outpatient visit same day as a procedure such as child presents with wheezing and you determine nebulizer treatment is needed

76 Modifier

- Used on procedures
  - Example: Multiple nebulizer treatments given on the same day by the same physician

59 Modifier

- Used only on procedures
  - Example: Used on pulse ox when done at the same time as other procedures

Counseling During a Well Child Visit

- Scenario: During annual exam, several asthma topics are reviewed
- Can link the well child exam (code 99391) with an asthma visit (code 99213) using a -25 modifier

Don't Forget the Procedures

- Pulse oximetry (94760)
- Spirometry (94010)
- Nebulizer treatment (94640)
- Teaching: Nebulizer, Metered Dose Inhaler etc. (94664)
- Flu shot (90657, 90658, 90659)
- Prolonged Physician Services (99354, 99355)

Tools

- Coding companion with asthma examples
- Visit template for documentation
- Other sources of information
  - AAP 1-800-433-9046 Coding Questions
  - AAP News - Coding Corner (monthly)
  - AAP - Coding for Pediatrics, and
  - AAP - Coding Companion - quarterly

Take Home Messages

- For asthma visits focused on education, coding based on time more accurately captures the value of what was accomplished
- Pediatricians should receive appropriate reimbursement for the quality asthma care they provide
- Documentation and coding makes a difference

Appendix

CLASSIFYING ASTHMA SEVERITY AND INITIATING TREATMENT
IN YOUTHS ≥ 12 YEARS OF AGE AND ADULTS

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

Components of Severity		Classification of Asthma Severity (≥12 years of age)			
		Intermittent	Persistent		
			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 daily, and not more than 1x on any day	Daily	Several times per day
	Interference with normal activity	None	Minor limitation	Some limitation	Extremely limited
	Lung function	•Normal FEV_1 between exacerbations •FEV_1 > 80% predicted •FEV_1/FVC normal	•FEV_1 >80% predicted •FEV_1/FVC normal	•FEV_1 >60% but <80% predicted •FEV_1/FVC reduced 5%	•FEV_1< 60% predicted •FEV_1/FVC reduced >5%
Risk	Exacerbations requiring oral systemic corticosteroids	0-1/year (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			
Recommended Step for Initiating Treatment		**Step 1**	**Step 2**	**Step 3**	**Step 4 or 5**
				and consider short course of oral systemic corticosteroids	
		In 2-6 weeks, evaluate level of asthma control that is achieved and adjust therapy accordingly			

Key: FEV1, forced expiratory volume in 1 second; FVC, forced vital capacity; ICU, intensive care unit

Note: 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.

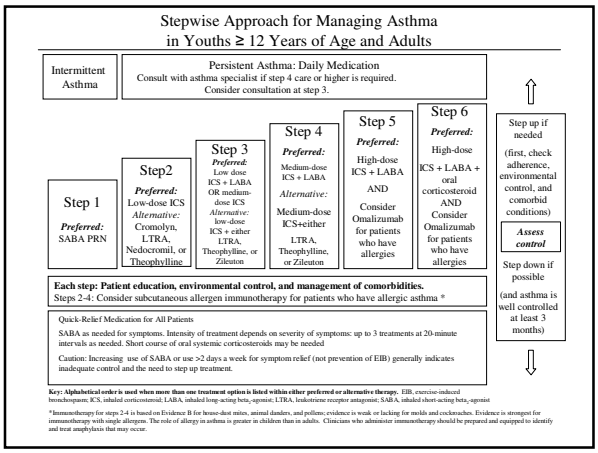
ASSESSING ASTHMA CONTROL AND ADJUSTING THERAPY IN YOUTH ≥ 12 YEARS OF AGE AND ADULTS

Components of Control		Classification of Asthma Control (≥ 12 years of age)		
		Well Controlled	Not Well Controlled	Very Poorly Controlled
Impairment	Symptoms	≤ 2 days/week	>2 days/week	Throughout the day
	Nighttime awakenings	≤ 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 requiring oral systemic corticosteroids	0-1/year	≥ 2/year (see note)	
		Consider severity and interval since last exacerbation		
	Progressive loss of lung function	Evaluation requires long-term follow-up care.		
	Treatment-related adverse effects	Medication side effects can vary in intensity from none to very troublesome and worrisome. The level of intensity does not correlate to specific levels of control but should be considered in the overall assessment of risk.		
Recommended Action for Treatment		•Maintain current step. •Regular follow ups every 1-6 months to maintain control. •Consider step down if well controlled for at least 3 months.	•Step up 1 step and •Reevaluate in 2-6 weeks. •For side effects, consider alternative treatment options.	•Consider short course of oral systemic corticosteroids, •Step up 1-2 steps, and •Reevaluate in 2 weeks. •For side effects, consider alternative treatment options.

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

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

Note: 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.


Stepwise Approach for Managing Asthma
in Youths ≥ 12 Years of Age and Adults
Intermittent Asthma
Persistent Asthma: Daily Medication
Consult with asthma specialist if step 4 care or higher is required.
Consider consultation at step 3.
Step 1
Preferred:
SABA PRN
Step2
Preferred:
Low-dose ICS
Alternative:
Cromolyn, LTRA, Nedocromil, or Theophylline
Step 3
Preferred:
Low dose ICS + LABA OR medium-dose ICS
Alternative:
low-dose ICS + either LTRA, Theophylline, or Zileuton
Step 4
Preferred:
Medium-dose ICS + LABA
Alternative:
Medium-dose ICS+either LTRA, Theophylline, or Zileuton
Step 5
Preferred:
High-dose ICS + LABA
AND
Consider Omalizumab for patients who have allergies
Step 6
Preferred:
High-dose ICS + LABA + oral corticosteroid
AND
Consider Omalizumab for patients who have allergies
Step up if needed
(first, check adherence, environmental control, and comorbid conditions)
Assess control
Step down if possible
(and asthma is well controlled at least 3 months)
Each step: Patient education, environmental control, and management of comorbidities.
Steps 2-4: Consider subcutaneous allergen immunotherapy for patients who have allergic asthma *
Quick-Relief Medication for All Patients
SABA as needed for symptoms. Intensity of treatment depends on severity of symptoms: up to 3 treatments at 20-minute intervals as needed. Short course of oral systemic corticosteroids may be needed
Caution: Increasing use of SABA or use >2 days a week for symptom relief (not prevention of EIB) generally indicates inadequate control and the need to step up treatment.
Key: Alphabetical order is used when more than one treatment option is listed within either preferred or alternative therapy. EIB, exercise-induced bronchospasm; ICS, inhaled corticosteroid; LABA, inhaled long-acting beta2-agonist; LTRA, leukotriene receptor antagonist; SABA, inhaled short-acting beta2-agonist
* Immunotherapy for steps 2-4 is based on Evidence B for house-dust mites, animal danders, and pollens; evidence is weak or lacking for molds and cockroaches. Evidence is strongest for immunotherapy with single allergens. The role of allergy in asthma is greater in children than in adults. Clinicians who administer immunotherapy should be prepared and equipped to identify and treat anaphylaxis that may occur.