THE PLANNED ASTHMA VISIT

Rhonique Shields-Harris, MD Molly Savitz, MSN, FNP, AE-C CNHN Childhood Asthma QI MOC Learning Collaborative October 30, 2012





Childhood Asthma QI Collaborative CME Learning Objectives

By the end of this session, participants will be able to:

- Name three reasons to schedule children with asthma for preventive visits.
- 2. Identify three barriers to good asthma control.
- Distinguish between two different treatments strategies for managing persistent asthma.
- Explain how a written asthma action plan can improve patient care.





Today's Presenters: No faculty disclosures



Rhonique Shields-Harris MD, MHA, FAAP



Molly Savitz MSN, FNP, AE-C

All presenters have signed disclosure statements indicating:

- No financial or business interest, arrangement or affiliation that could be perceived as a real or apparent conflict of interest in the subject (content) of their presentation.
- No unapproved or investigational use of any drugs, commercial products or devices.



CME Accreditation



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This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of The George Washington University School of Medicine and Health Sciences and Children's National. The George Washington University School of Medicine and Health Sciences is accredited by the ACCME to provide continuing medical education for physicians

PHYSICIAN CME CREDIT:

- The George Washington University School of Medicine and Health Sciences designates this continuing medical education activity for a maximum of 1 AMA Physician Recognition Award Category 1 Credits™.
- Participants will be required to certify attendance or participation on an hour-for-hour basis.





Outline: the asthma "check-up"

- Assessment of control
- Device technique
- Environmental exposures
- Rx inhaled steroids
- Address co-morbidities
- Asthma Action Plan, with follow up







Case presentation

James, 5 yrs old, in for WCC, c/o noct. cough ~ 1x/wk, disturbs sleep, tires more easily than usual x 2 mos.

PMH: mild eczema

occas, wheeze w/URIs as infant

FH: mom "bronchitis" as child

PE: unremarkable

What would you do next? (may pick >1 answer)

- (A) Consider asthma as a possible dx and give trial albuterol.
- (B) Refer to pulmonologist or allergist.
- (C) Investigate environmental exposures.
- (D) Rx inhaled steroids.
- (E) None of the above.



A few words about diagnosis...

- "Reactive Airways Disease" (NO ICD9 code!)
- "Wheezing" (786.07)
- "Bronchospasm" (519.11)
- "Bronchitis" or "Bronchiolitis" (466.XX)
 vs. "Asthma" (493.XX)

Consider asthma diagnosis if sx recur, are triggered by known allergen/irritant, and/or respond to SABA.





Asthma Predictive Index (API)

Apply to a child ≤3y with ≥4 wheezing episodes (≥1 physician diagnosed) AND



EITHER 1 major criteria:

- atopic dermatitis per MDaeroallergen sensitization
- parent w/asthma

AND/OR 2 minor criteria:

- wheezing w/o URIs
- eosinophilia ≥4%
- milk/egg/peanut sensitization



Positive API \rightarrow 75% chance school-age asthma

Negative API → 95% chance NO school-age asthma





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Why a planned asthma visit?



- EPR-3 recommendation, GIP priority
- Chronic and variable nature of asthma
- Centrality of education in selfmanagement
- Patient-centered care in medical home





Case presentation (cont'd)

James returns 2 wks later

+ response to prn albuterol, using ~ 3-4x per week classify as mild persistent asthma start on low-dose daily ICS

When would you like to see him back in your office?

- (A) When he is next due for a well child check
- (B) In 3 months
- (C) In 2-6 weeks
- (D) Follow up as needed





NHLBI follow-up recommendations

- 2-6 wks after initiating or increasing daily tx
- Every 1-6 months depending on control level
 - Mild-mod persistent under control x 3 months: q 6 months
 - Severe persistent or poor control: more often
- Every 3 months if anticipating step down
- 2-6 wks after stepping down tx

Our recommendation:

- √ 2-6 wks after changing tx
- √ Q 2-3 months if persistent
- Q 6 months if intermittent





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The asthma "check-up"

- Assessment of control
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- Environmental exposures
- Rx inhaled steroids
- Address co-morbidities
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Office assessment of control

- Use validated, standardized tool
 - ACT/CACT
 - ATAQ
- Confirm/clarify directly, esp. if young child
- Consider other causes of symptoms
- ACT only assesses impairment, not risk!







Childhood Asthma Control Test for children 4 to 11 years old. Know the score.

This test will provide a score that may help your doctor determine if your child's asthma treatment plan is working or if it might be time for a change.

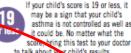
How to take the Childhood Asthma Control Test

Step 1 Let your child respond to the first four questions (1 to 4). If your child needs help reading or understanding the question, you may help, but let your child select the response. Complete the remaining three questions (5 to 7) on your own and without letting your child's response influence your answers. There are no right or wrong answers.

Step 2 Write the number of each answer in the scare box provided.

Step 3 Add up each score box for the total.

Step 4 Take the test to the doctor to talk about our child's total score









PDSA cycle idea!

Attach ACT to chart for patient/family to complete at each asthma-related visit

If no paper chart, keep stack of ACTs at front desk, flag asthma appts to remind staff to administer







Barriers to good control

Patient Factors



Provider Factors

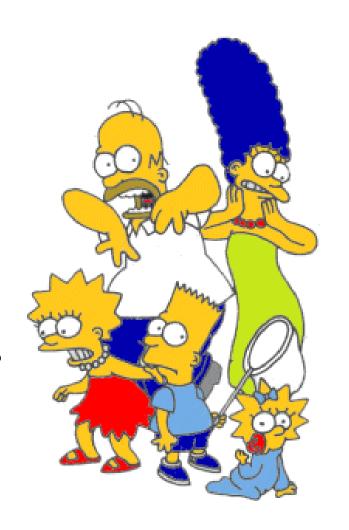
System Factors





Patient factors

- Adherence as low as 43%
- Experience of asthma is episodic rather than chronic
- Misunderstandings or fears
- Language and/or literacy barriers
- Social disorganization, poverty, stress







Provider factors



- Reluctance to diagnose asthma
- Reluctance to prescribe steroids
- Lack of familiarity with devices
- Lack of time for patient education





System factors

- Insurance coverage meds, visits
- School medication requirements
- Chronic environmental exposures

Snapshots at jasonlove.com

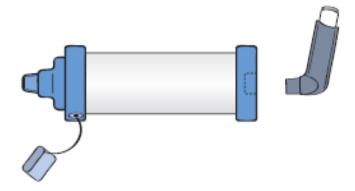






Improving assessment of adherence

- Remind pt to bring medications to each visit, check counters
- Ask patient/family what they are actually doing, not what you recommended they do
- Ask about problems & concerns
- Have patient demonstrate technique and correct errors







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Device technique

An opportunity for improvement...

Observational study of 296 children ages 8-16y from five primary care practices (41 providers) in non-urban areas of NC

- Only 8% of children performed all of the correct steps for use of MDI/spacer
- 95% of providers did not assess technique
- 96% of providers did not demonstrate technique













Environmental assessment

- Tools for office use available
- Separate session on this topic in spring
- If you do nothing else, focus on smoke exposure and the Safe Sleep Zone







"The Safe-Sleep Zone"

- Dust with a damp rag nothing fancy
- No carpets
- Wash sheets weekly in hot water
- Pillow covers and mattress pads
- Don't eat or drink anything in the bedroom
- Pets are not welcome
- Don't burn anything in the bedroom





Case presentation (cont'd)

James returns 1 month after starting ICS
doing better overall
albuterol 1-2x in past 2 weeks during day
mom limiting activity due to fear re diagnosis
continues to cough @ night at least 1x/week

What else do you want/need to know?

What would be your next step(s)?

- (A) No tx change, see again in 3-6 months
- (B) Reinforce activity limitation
- (C) Increase ICS or add another asthma medication
- (D) Add antihistamine or intranasal steroid
- (E) Refer to sub-specialist



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Therapeutic strategies

- Aggressive medical tx to gain control, then step down to minimum required (EPR-3 recommended approach)
 - Increase ICS
 - Add LTRA
 - Add LABA
- Or, gradual increase in medical tx to achieve control while minimizing side effects
- Consider stepping "over" rather than up to alternative choice within step level
- Consider further diagnostic testing





Does it matter which ICS I use?

Few head-to-head comparisons

All are better than placebo

Options:

Asmanex mometasone **Pulmicort** Alvesco budesonide ciclesonide Flovent **Qvar** fluticasone beclamethasone





Daily vs. episodic ICS use

- Daily dosing is NHLBI standard, strongest evidence of benefit
- Data from recent studies re non-inferiority of episodic tx in some children
 - Best for virally-triggered episodes in young children
 - May need 4x usual daily dose
- API may or may not be a factor
- Reduces overall steroid burden





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Case presentation (cont'd)

After further discussion with James and parents, you

review technique add montelukast discuss safe sleep zone encourage physical activity refer to allergist for skin testing

What else do you need to do at this visit? (may select ≥ 1)

- (A) Provide or update/review written AAP
- (B) Rx quick-relief medication for school
- (C) Teach peak flow monitoring
- (D) Schedule follow-up appt in 6 months





The asthma "check-up"

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Asthma Action Plans

- Evidence of benefit mixed in the literature
- Excellent face validity
- Most important role is communication:
 - Education about triggers, meds, symptoms
 - Multiple caregivers
 - School nurses: city/county/state-specific





Name	School	DOB	1			
Health Care Provider		/ / Provider's Phone				
Health Care Provider			DO NOT WRITE IN THIS SPACE			
Parent/Responsible Person		Parent's Phone				
Additional Emergency Contact		Contact Phone	Place Patient Label Here			
			ngs that make your asthma worse): Date o			
□ Intermittent or Persistent: □ Mild □ Moderate			e) Pollen Dust Animals Last Fluid Pests (rodents, cockroaches) Shot:			
Asthma Control	geal reflux Exercise					
□ Well-controlled □ Needs bett	er control 🗆 Sea	son: Fall, Winter, Spring, Su	ummer Other:			
Green Zone: Go!-1	Take these	CONTROL (PREVEN	ITION) Medicines EVERY Day			
You have ALL of the	se: No contr	ol medicines required. Alway:	s rinse mouth after using your daily inhaled medicin			
Breathing is easy	Inhalad cost	irrosternid or inhalad continuoternid/long	puff(s) inhaler with spacer times a c			
No cough or wheeze		Inhaled corticosteroid or inhaled corticosteroid/long-acting β-agonist nebulizer treatment(s) Inhaled corticosteroid				
Can work and play Can sleep all night			, take by mouth once daily at bedtime			
		Leukotriene antagonist For asthma with exercise, ADD:				
Peak flow in this area: to		. puf	f(s) inhaler with spacer 15 minutes before exercise			
(More than 80% of Personal Best)		Fast-acting inhaled β-agonist For nasal/environmental allergy, ADD:				
Personal best peak flow:						
Yellow Zone: Cautio	n!–Continue	CONTROL Medicine	es and <u>ADD</u> QUICK-RELIEF Medicine			
You have ANY of the		. puff(s) ir	haler with spacer every hours as needed			
First sign of a cold	Fast-acting i	Fast-acting inhaled β-agonist				
Cough or mild wheeze Tight chest		. nebulize	r treatment(s) every hours as needed			
Problems sleeping,	Fast-acting i	nhaled β-agonist				
working, or playing Peak flow in this area:	Other					
to	Ca	Call your DOCTOR If you have these signs more than two times				
(50%-80% of Personal Best)	10/1 6 1		-relief medicine doesn't work!			
		nue CONTROL & QUI	CK-RELIEF Medicines and <u>GET HELP</u>			
You have ANY of the Can't talk, eat, or walk to		, puff(s) in	haler with spacer <u>every 15 minutes,</u> for <u>3</u> treatments			
Medicine is not helping	OR					
Breathing hard and fast Blue lips and fingernails		Fast-acting inhaled β-agonist , nebulizer treatment <u>every 15 minutes,</u> for <u>3</u> treatments				
• Tired or lethargic		Call your doctor while giving the treatments.				
• Ribs show	Other		NUR BOSTOR S HOLLS			
Peak flow in this area: Less than	IF YOU	IF YOU CANNOT CONTACT YOUR DOCTOR: Call 911 for an ambulan				
(Less than 50% of Personal Best)			the Emergency Department!			
REQUIRED Healthcare Provider	Signature:	Possible side effects of quick-relief n	SCHOOL MEDICATION CONSENT AND PROVIDER ORDER FOR CHILDREN/YOUTH: Possible side effects of quick-relief medicines (e.g., albuterol) include tachycardia, tremor, and nervousness.			
Date:		Healthcare Provider Initials: This student is capable and approved to self-administer the medicine(s) named above.				
REQUIRED Responsible Person Signature:		This student is <u>not</u> approved to self-medicate. This authorization is valid for one calendar year.				
Date:		As the RESPONSIBLE PERSON: I hereby authorize a trained school employee, if available, to administer medication to the				
Follow up with primary doctor in 1 week or:		student.				
Phone:		☐ I hereby authorize the student to possess and self-administer medication. ☐ I hereby acknowledge that the District and its schools, employees and agents shall be immune				
Patient/parent has doctor/clinic r		from civil liability for acts or omissions under D.C. Law 17-107 except for criminal acts, intentional wrongdoing, gross negligence, or willful misconduct.				
★ ★ ★ Government		dcasthmapartnership.org	Adapted from NAEPP by Children's National Medical C Coordinated by the National Capital Asthma Coa			
District of Co Vincent C. Gr		Adapted from NAEPP by Children's National Medical Cente casthmapartnership.org This publication was supported in part by a grant from the C Department of Heidth Admin Control Piogram, with funds provided by the Cooperative Agreement Namiber SUSPERIZACIO-07 from the Centers to Disease Control and Pervention (CIO, 1 Scientista see Joseph Control Piogram).				
		responsibility of the authors and do not necessarily represent the official views of the CDC Permission to reproduce blank form. Updated May 201				

DC and MD plans

	and State School Asthma Medication A ACTION PLAN Date				MARVIAND	TRICKIER (LIST)	
Child's	Name: Guardian's Name:	DOB:	PEAK FLO	W PERSONAL BES			
ASTHM/	SEVERITY: Exercise Induced Intern	nitient Mild Persi	_		vere Persistent E UNLESS OTHERWISE	INDICATED	
TION USE	Breathing is good No cough or wheeze Can work, exercise, play Other: Peak flow greater than (80% personal best)	Medication		Dose	Roule	Frequency/Time	
Č	EXERCISE ZONE						
MS / INDICATIONS FOR MEDICATION I	Prior to exercise/sports/ physical education (PE)	Medication	(Rescue Medication)	Dose	Roule	Prequency/Time	
	YELLOW ZONE	RESCUE MEDICAT	IONS - TO BE ADD	ED TO GREEN	ZONE MEDICATIONS I	FOR SYMPTOMS	
	Cough or cold symptoms Wheezing Tight chest or shortness of breath Cough at night Other: Peak flow between and (50%-79% personal best)	Medication If symptoms do not If using more than	improve in twice per week, notify	Dose minutes, notify y the health care	Route the health care provider provider and parent/gu	Prequency/Time and parent/guardian. ardian.	
10	RED ZONE	EMERGENCY MEDICATIONS - TAKE THESE MEDICATIONS AND CALL 911					
CHECK S YMP	Medication is not helping within 15-20 mins	Medication CONTACT THE F	ARENT/GUARDIAN	Dose	Route NG 911.	Prequency/Time	
I authorize Student m Health Ca Signature	H CARE PROVIDER AUTHORIZATION the administration of the medications as ordered above, any self-carry medications Yes No tre Provider Name:	I authorize the admini I acknowledge that m self-carry his/her me		s as ordered above. ot authorized to	Signature:	medications:	



Role of peak flow measurement

- Limited evidence of benefit in literature
- Useful for monitoring but not diagnosis
- Helpful tool for some children/families
- Emphasize inhalation device technique over PF







Yellow and Red Zone management

- Inter-clinician variability
- Hospital discharge vs. outpatient tx
- Dosing considerations

Yellow Zone: Caution!–Continue CONTROL Medicines and <u>ADD</u> QUICK-RELIEF Medicines					
You have ANY of these: • First sign of a cold • Cough or mild wheeze • Tight chest • Problems sleeping, working, or playing Peak flow in this area:	DR puff(s) inhaler with spacer every hours as needed OR hours as needed OR hours as needed Call your DOCTOR if you have these signs more than two times a week, or if your quick-relief medicine doesn't work!				
Red Zone: EMERGENCY!-Continue CONTROL & QUICK-RELIEF Medicines and GET HELP!					
You have ANY of these: Can't talk, eat, or walk well Medicine is not helping Breathing hard and fast Blue lips and fingernails Tired or lethargic Ribs show					
Peak flow in this area: Less than (Less than 50% of Personal Best)	IF YOU CANNOT CONTACT YOUR DOCTOR: Call 911 for an ambulance or go directly to the Emergency Department!				





Care coordination

- Multiple copies of written plan
 - Send to school nurse with parent and PCP signature
 - May need additional authorization form
- Rx >1 quick-relief MDI school, home(s)
- Meds for school
 - Must be labeled with full Rx and in box
 - Dosing must match AAP or med authorization form
 - Parents must bring to school

PDSA cycle idea...







Case presentation (cont'd)

After further discussion with James and parents, you

review technique add montelukast

discuss safe sleep zone

encourage physical activity

refer to allergist for skin testing

What else do you need to do at this visit?

- (A) Provide or update/review written AAP
- (B) Rx quick-relief medication for school
- (C) Teach peak flow monitoring
- (D) Schedule follow-up appt in 6 months 2-6 wks





Summary: the asthma "check-up"

- Assessment of control risk & impairment
- Device technique & adherence
- Environmental exposures esp. sleep area
- Rx inhaled steroids individualize tx
- Address co-morbidities
- Asthma Action Plan coordinate care
- Schedule follow up









Questions?



