

Objectives

- At the end of this educational activity the participants should be able to:
 - Identify importance of communication and non-adherence
 - Understand various real world factors affecting communication adherence
 - Examine those factors which can be addressed such as shared decision making
 - Advocate for better asthma care in your community

FACULTY/DISCLOSURES

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Research Grants: NIH, JPB Foundation



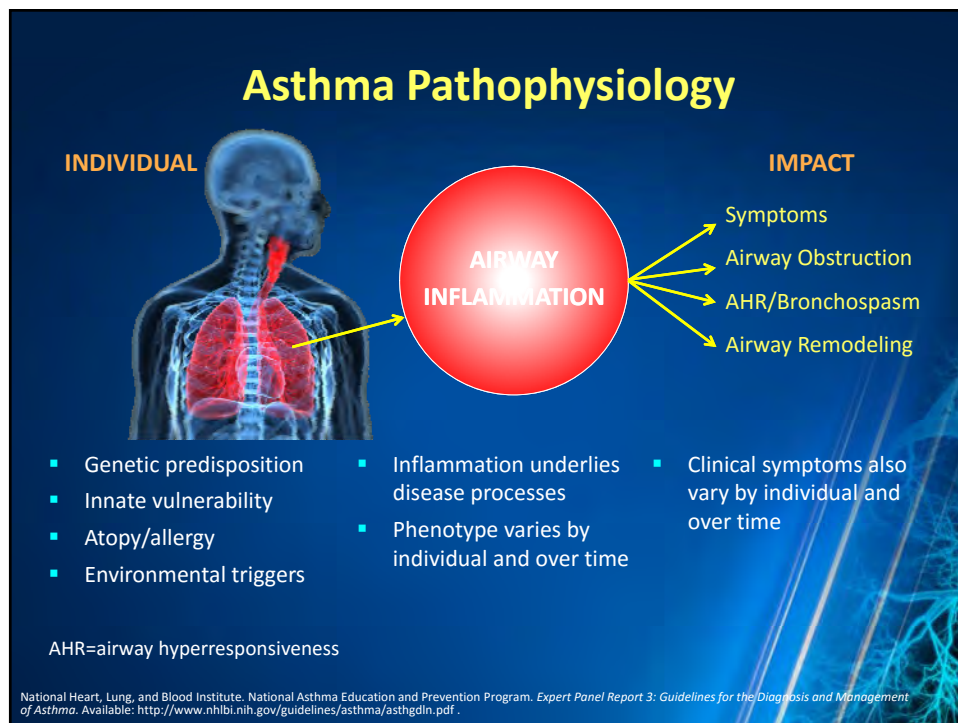
- Noreen Clark, PhD (1944-2013)
- Lara Thomas, MPH
- Melissa Valerio, PhD
- Alan Baptist, MD
- Harvey Leo, MD
- Alan Luskin, MD
- Bruce Bender, PhD
- Others

Case Study 1: New Patient

You meet a 43 year old Harrisburg woman of northern European heritage with a long history of recurrent “allergic bronchitis” who was recently seen in urgent care due to a severe cough. She was given qid albuterol and oral steroids for 3 days and is improving, and is finishing a course of azithromycin and benadryl as well. Today her chest is clear and she’s not in any distress. Her history is remarkable for several emergency room visits all of which resolve with “machine breathing treatments”. She states only needs her albuterol puffer twice daily when otherwise healthy and smokes occasionally when well. She has a 25% improvement in post-bd FEV1 today.

What is your diagnosis?

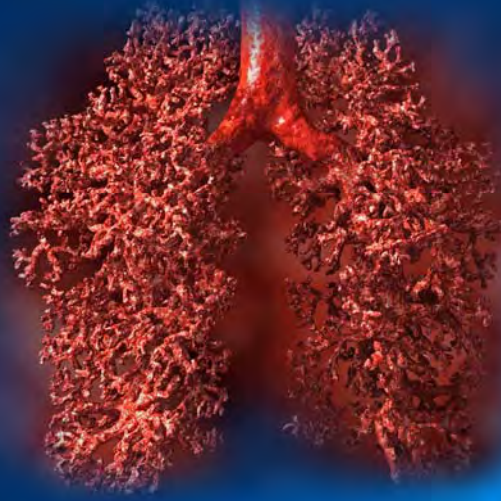
What management plan do you choose...and why?



Asthma: A Chronic Inflammatory Disease of Mostly Small Airways

Large Airways:

- Trachea
- Bronchi
- Bronchioles



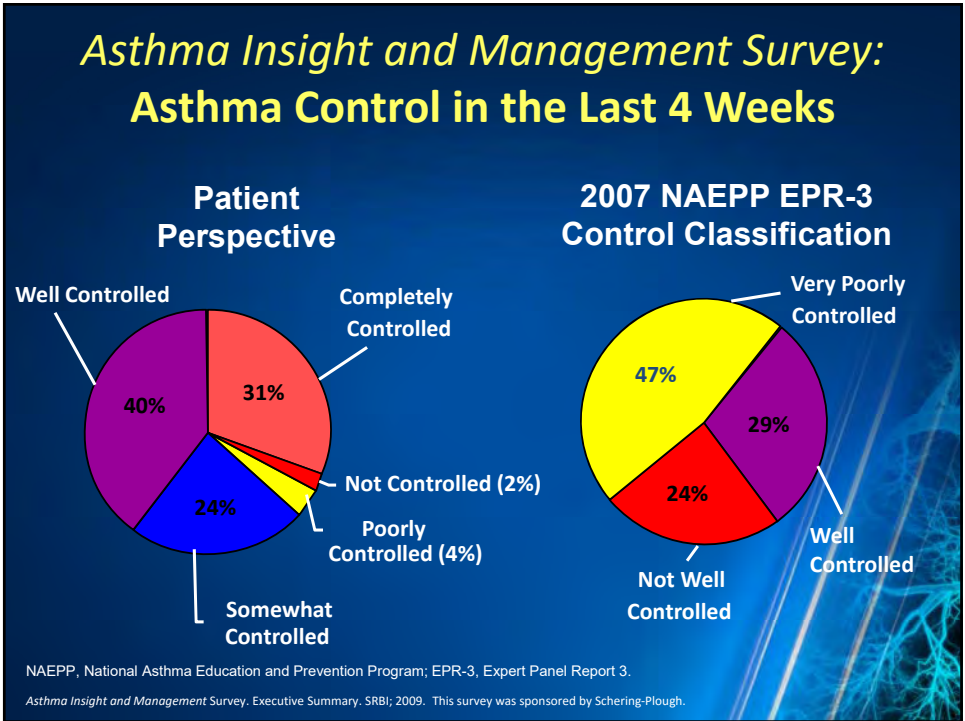
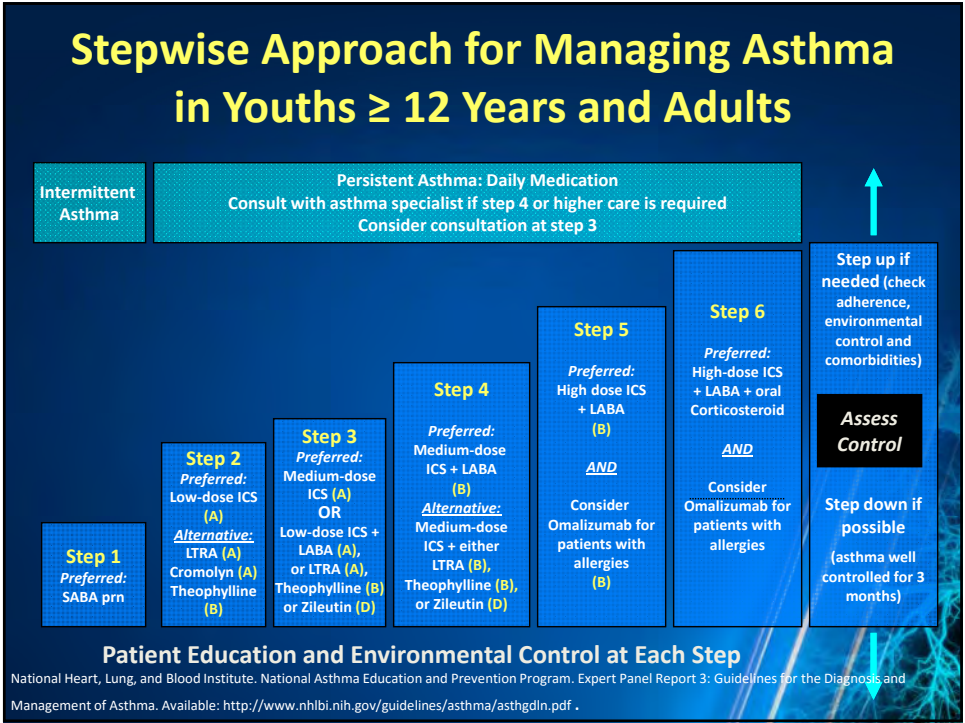
Small Airways:

- Terminal bronchioles
- Respiratory Bronchioles

Classifying Asthma Severity and Initiating Treatment in Youths ≥ 12 years and Adults

Components of Severity		CLASSIFICATION OF ASTHMA SEVERITY			
		INTERMITTENT	PERSISTENT		
			Mild	Moderate	Severe
Impairment	Symptoms	≤2 days/week	>2 days/week not daily	Daily	Continuous
	Nighttime awakenings	≤2x/month	3-4x/month	>1x/week not nightly	Often nightly
Normal FEV ₁ /FVC	SABA use for sx control (not for EIB)	≤2 days/week	>2 days/week not daily	Daily	Several times daily
	Interference with normal activity	None	Minor limitation	Some limitation	Extremely limited
8-19 yr 85% 20-39 yr 80% 40-59 yr 75% 60-80 yr 70%	Lung Function	• Normal FEV ₁ between exacerbations • FEV ₁ > 80% • FEV ₁ /FVC normal	• FEV ₁ >80% • FEV ₁ /FVC normal	• FEV ₁ >60% but <80% • FEV ₁ /FVC reduced 5%	• FEV ₁ <60% • FEV ₁ /FVC reduced >5%
Risk	Exacerbations requiring oral corticosteroids	0-2/year	>2/year	→	
		Frequency and severity may vary over time for patients in any category			
		Relative annual risk of exacerbation may be related to FEV ₁			
Recommended Step for Initiating Treatment		STEP 1	STEP 2	STEP 3	STEP 4 or 5
		Consider short course of oral steroids			
		In 2-6 weeks, evaluate asthma control that is achieved and adjust therapy accordingly			

National Heart, Lung, and Blood Institute. National Asthma Education and Prevention Program. Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma. Available: <http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.pdf>.



Asthma 2016: Disease of Inflammation & Communication



PACE: Physician Asthma Care Education

<http://www.nhlbi.nih.gov/health/prof/lung/asthma/pace/>

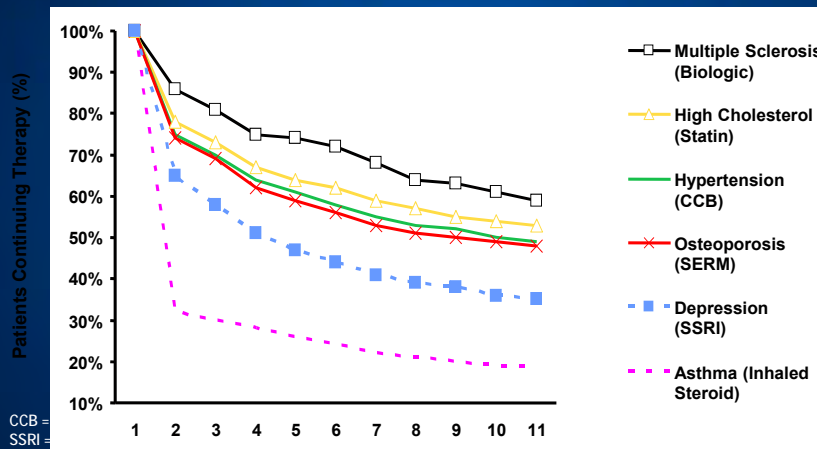
Classifying Asthma Severity as a Basis to Initiate Asthma Therapy

Asthma Adherence 2016: An Epidemic of Behavioral Concern

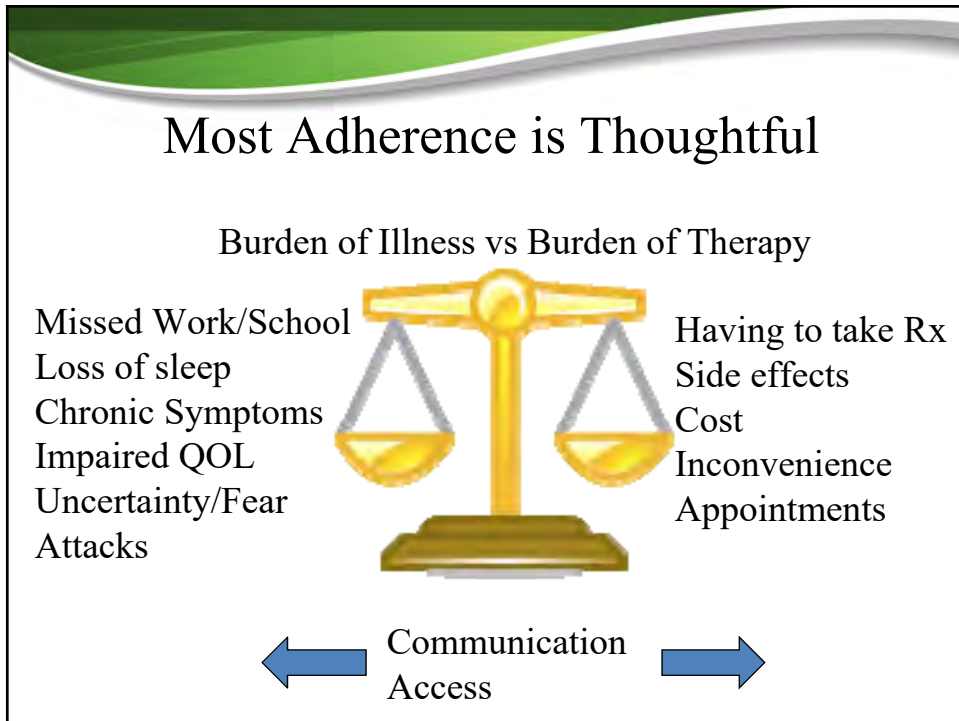
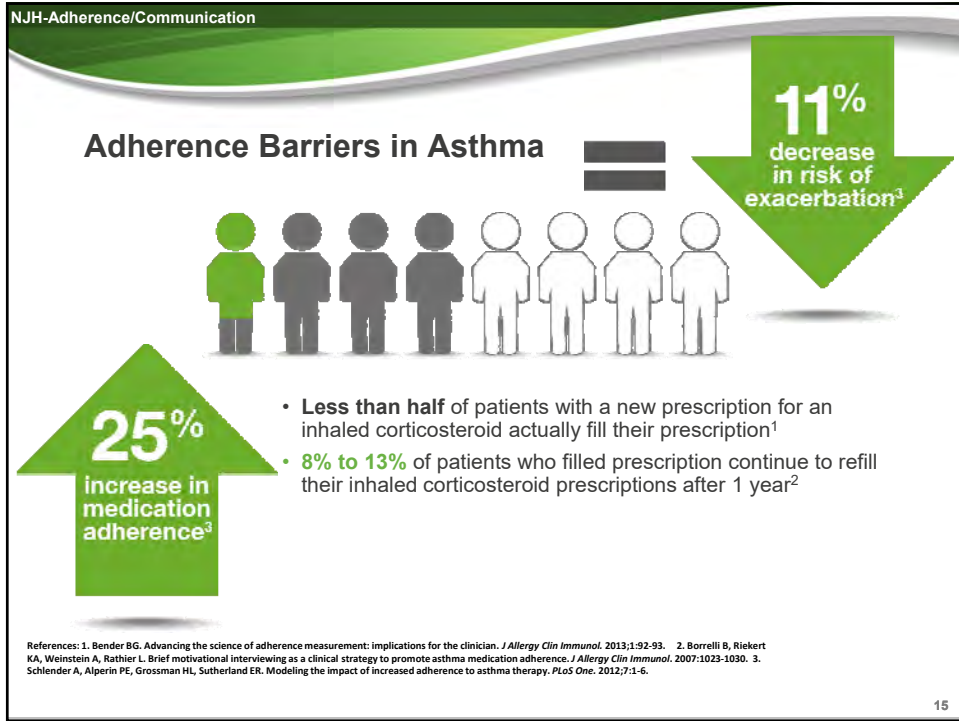
- | | |
|---|--|
| <ul style="list-style-type: none"> ■ COMMON – More than Diabetes, Hyperlipidemia, Osteoporosis, Depression, Hypertension – Up to 75% of Patients – Less about Race, Ethnicity, SES and Education | <ul style="list-style-type: none"> ■ PERSISTENT – Rarely Rigorously Addressed in Care – Associated with Exacerbations, Hospitalization, Death – Where are the Guidelines? |
|---|--|

Patient Persistence on Medication in Chronic Diseases

Across classes, 20% - 35% loss in patient base after fill of initial prescription



Vanelli MR et al. Moving beyond market share. In: *In Vivo: The Business and Medicine Report 2013*: 4.



Some Non-Adherence is Thoughtful

$$\text{Adherence} = f(\text{Relationship} \times \text{Disease Burden} / \text{Therapy Burden})$$

Relationship = communication + access

Disease Burden = severity* x deviation in QoL** + cost (direct + indirect)

Therapy Burden = (cost + inconvenience + side effects*) / effectiveness*

It's not just patients and medication.
It's action/lifestyle plans and office visits , ICS,
IT, Biologics and Environmental Control.
Clinicians and Payers can be non-Adherent, too!

The System Puts Up Barriers

- 4 areas of Post-ED understanding
 - Diagnosis
 - ER treatment
 - Home care (meds, follow-up)
 - Warning signs for ER return
- 78% didn't understand one
- 50% didn't understand two

Annals of Emergency Med July, 2008

Physician-Patient Discordance

What medical school did a patient go to?

- ½ the time patients and physicians disagree on what the problem is.
- ¼ of all problems mentioned by the patient are not recognized at all by the physician.
- > 2/3 of the time patients and physicians disagree on what the goals of treatment are.
- Patients must be involved in all aspects of care, from defining the problem to determining therapy.

Patient-Centered Collaborative Care

‘If physicians view themselves as experts whose job is to get patients to behave in ways that reflect that expertise, both will continue to be frustrated. . . . ‘

‘Once physicians recognize patients as experts on their own lives, they can add their medical expertise to what patients know about themselves to create a plan that will help patients achieve their goals.’

• Bodenheimer et al JAMA November 20, 2002—Vol 288, No. 19

Maxims on Adherence

- The less patients have to do, the more likely they are to do it
- To know is not to do
- Anxiety and depression decrease adherence
 - A lot, so look for it
- Physician access and response are determinants of adherence
- Cost is an increasingly important burden
- The Clinician is not the patient's parent

Maxims on Adherence

- Excellence in medical therapy is worthless if patient doesn't take medication
- Clinicians can't predict who will and won't
- Most MDs believe they are good communicators
- Most patients feel communication is inadequate
- The system, the doctor and the patient must ALL assume responsibility for solving the problem
- We don't do Shared Decision Making very well

So What Must the System Do?

- Promote, provide and pay for education that is interactive
- Formulary decisions to include adherence factors
- Co-pays used to promote effective care
- Facilitate depression screening and Rx
- Improve access to skilled clinicians
- Facilitate communication and Shared Decision Making with great Decisional Aids

Medication Use In Asthma

The wrong therapy is the one which
failed!

P.S.: It won't work if they don't take it.

P.P.S.: They won't take it if they don't get it.
(Literally and Figuratively)

We have altered the social contract between patients and doctors

- We no longer live in the community we treat.
- We fail to understand the patient and their lives and effects of the disease and its treatment on them.
- We think that knowledge and education and technology is sufficient to change behavior (ours and theirs) and improve outcomes.

The Clinicians Job

- Get the Patient Preference Info:
- What bothers you about the asthma?
- Do you think you need better asthma control?
- What are you looking for from the therapy?

Clinicians should consider what features of the available therapies and side effect profiles meet the patient's needs with Decisional Aids and Shared Decision Making

Creating a new system


- Specialty controlled triage
 - Focus on high risk populations
 - Modern tools, including depression & adherence
- Give PCP limited, straightforward disease management skills
 - Use technology to assist at Point Of Service
- Teach and foster Behavioral Medicine
- Provide a system which facilitates/rewards
- Monitor outcomes and redirect patients
 - Use technology to monitor and advise

An office visit is NOT a final exam! As long as the patient and clinician...

- Have an on-going relationship
- Agree upon goals
- Engage in on-going monitoring and shared decision making
- Understand the heterogeneity of response and *expect* the possibility of non-response and heightened susceptibility to adverse effects

NJH-Adherence and Communication

Asthma Self-Management Education at Multiple Points of Care



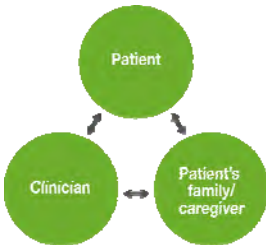
Reference: National Heart, Lung, and Blood Institute. National Asthma Education and Prevention Program. Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma. Full Report 2007. August 28, 2007.

29

NJH-Adherence and Communication

Monitoring Patient–Provider Communication and Patient Satisfaction

Open and unrestricted communication



Monitor at each visit:

- Adherence to the regimen???
- Inhaler technique???
- Side effects of medications using SDM
- Patient satisfaction with asthma control ARC
- Patient satisfaction with quality of care Survey

Negative attitude toward medication and/or reluctance toward self-management are risk factors for severe exacerbations

Reference: 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. August 28, 2007.

30

Education Beyond the Patient: Provider Collaboration and Training

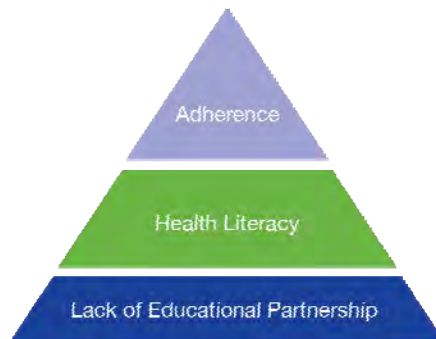
According to the NHLBI Guidelines, asthma providers should consider:

- Implementing multidimensional, interactive clinician education in asthma care???
- Participation in programs to enhance skills in communicating with patients????
- Development and use of clinical pathways for management of acute asthma???
- Developing, implementing, and evaluating system-based interventions to support clinical decision-making and to support quality care for asthma???

Reference: 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. August 28, 2007.

31

Potential Barriers to Self-Management and Asthma Control



32

Health Literacy is a Key Factor in Chronic Disease Management

- Health literacy is the ability to read, understand, and act on health care information.¹
- Health literacy affects people's ability to²USE SDM to:
 - Navigate the healthcare system, including filling out complex forms and locating providers and services
 - Share personal information, such as health history, with providers
 - Engage in self-care and chronic-disease management
 - Understand mathematical concepts such as probability and risk
- Four literacy areas³:
 - Visually literate
 - Computer literate
 - Information literate
 - Numerically/computationally literate

References: 1. Fact Sheet: What is health literacy? Center for Health Care Strategies, Inc. <http://www.chcs.org>. Accessed May 1, 2014..
 2. U.S. Department of Health and Human Services. *Quick Guide to Health Literacy*. <http://www.health.gov/communication/literacy/quickguide>. Accessed May 2, 2014. 3. National Network of Libraries of Medicine (NN/LM). Health Literacy. <http://nnlm.gov/outreach/consumer/hlthlit.html>. Accessed May 1, 2014.

33

Consequences of Low Health Literacy

- According to the American Medical Association, "poor health literacy is a stronger predictor of a person's health than age, income, employment status, education level, and race"
- Low health literacy is associated with a greater risk of preventable adverse health outcomes, including:
 - Greater healthcare utilization
 - Worse disease outcomes
 - Higher risk of death; more emergency room visits and hospitalizations
 - Taking medicines incorrectly
 - Less use of preventative health services (eg flu shot)

Health literacy may not be related to years of education or general reading ability

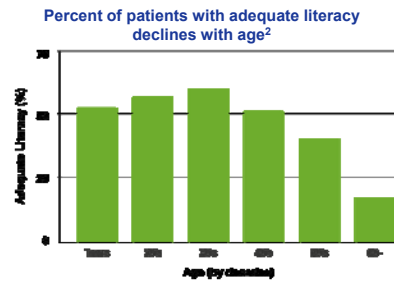
Reference: National Network of Libraries of Medicine (NN/LM). Health Literacy. <http://nnlm.gov/outreach/consumer/hlthlit.html>. Accessed May 1, 2014.

34

Assessing Health Literacy Deficiencies

How many of you feel your patients don't always fully understand information they receive?

- Nearly one of every two patients (46%) misunderstood one or more dosage instructions¹



Do you assess your patients' health literacy?

References: 1. Carlisle A, Jacobson KL, Francesco LD, Parker RM. Practical strategies to improve communication with patients. *Pharmacy & Therapeutics*. 2011; 36(9): 576-589. 2. Shah LC, et al. *J Am Board Fam Med*. 2010;23:195-203.

Indicators of Limited Health Literacy

Behaviors that may suggest literacy problems¹

- Bring reading materials closer to their eyes or point with a finger while reading
- Eyes glance over the page without truly focusing on words
- Provide incomplete medical history or check items as "no" to avoid follow-up questions
- Miss appointments
- Make errors regarding their medication
- Identify medication by color, size, and shape instead of reading label
- Signs of nervousness, confusion, frustration, and even indifference
- Withdrawal or avoid situations of complex learning
- Give incorrect answers when questioned about what they have read

Common excuses patients may use

- "I forgot my glasses"
- "I'll read this when I get home."
- "Can you read this to me?"
- "Let me bring this home so I can discuss it with my children."

References: Cornett S. *Assessing and Addressing Health Literacy. Online J of Issues in Nursing*. 2009;14(3)

NJH-Adherence/communication

Tips/Techniques: Helping to Increase Patients' Health Literacy via Proactive Care Management

Slow down, speak slowly, and spend extra time with each patient

Use plain, non-medical language

Use visual aids such as pictures or videos

Limit the amount of information – and repeat it

Ensure medication dosing instructions are clear
Poor example for dosage instructions: Take 2 tablets by mouth daily
Possible interpretations:
Take 2 tablets once-daily
OR take 1 tablet twice-daily

Use a “teach back” or “show me” approach to confirm understanding
Have patient explain information back to you to ensure he or she understands

Create a shame-free environment: encourage questions

Reference: Weiss BD. *Health Literacy and Patient Safety: Help Patients Understand. Manual for Clinicians*. 2nd ed. American Medical Association Foundation and American Medical Association. 2007.

37

NJH-Adherence/Communication

Adherence is Not Solely a Patient Problem

- WHO definition: “the extent to which a person’s behavior including taking medication, following diet plans, and executing lifestyle modifications, correspond with the agreed recommendations from a health care provider”
- Requires mutual consent to the recommendations by the 2 involved parties, patient and physician
- Reasons for non-adherence:
 - Social and cultural barriers
 - Attitude
 - Physician attitude and behavior
 - Patient perception
 - Economics
 - Poor health literacy

Physicians can enhance communication quality, thus promoting improved patient adherence

Reference: Shams MR and Fineman SM. *ACAAI*. 2014;112:9-12.

38

NJH-Adherence/communication

Interactions Among Patients, Providers, and Healthcare Systems May Impede Adherence to Therapy

Poor Provider-Patient Communication
 Patient has a poor understanding of the disease, benefits/risks of treatment, proper use of medication

The diagram consists of three overlapping circles: a blue circle on the left labeled 'Patient', a green circle on the right labeled 'Provider', and a grey circle at the bottom labeled 'Healthcare System'. The overlapping areas between two or all three circles are shaded, representing interactions between them.

Patient's Interaction with Healthcare System

- Poor access or missed clinic appointment
- Poor treatment by clinic staff
- Poor access to medications
- Switching to a different formulary
- Inability of patient to access pharmacy
- High medication costs

Reference: Costello K, Kennedy P, Scanzillo J. Recognizing nonadherence in patients with multiple sclerosis and maintaining treatment adherence in the long term. *Medscape J Med.* 2008;10(9):225.

39

NJH-Adherence/communication

Improving Adherence: Tips from the Guidelines

Assess And Encourage Adherence During All Asthma Visits	
Use effective techniques to promote open communication	✓
Begin each visit by asking about the patient's concerns and goals	✓
Ask specifically about any concerns about medications/treatment	✓
Assess patient's perception of their asthma severity and how well it is controlled	✓
Assess patient's level of social support; encourage family involvement	✓
Assess levels of stress, family disruption, anxiety, and depression associated with asthma and its management	✓
Assess patient's ability to adhere to the written action plan	✓

Reference: 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.* August 28, 2007.

40

What the Provider Might Do to Address Adherence

- During each visit and patient contact, emphasize benefits of therapy and impact of non-adherence
- Simplify the treatment plan and instructions to patient
- Actively listen with improved non-verbal communication
- Ask open-ended questions
- Look for signs of non-adherence—for example:
 - Do the patient's asthma symptoms fail to improve despite appropriate therapy?
 - Is the patient missing appointments?
 - Does pharmacy report patient is not refilling prescription?
- Patient demonstrations of medication administration
- Suggest patient uses some type of medication-taking system or reminder
- Seek assistance from family members, friends, community services to support patient
- Look Forward Approach—don't focus on the past; develop goals with the patient for future success (shared decision making)

41

Steps to develop an Active Partnership with Patient and Family

- Establish open communications
 - Identify and address patient and family concerns about
 - asthma and asthma treatment
 - Identify patient/parent/child treatment preferences regarding
 - treatment and barriers to its implementation
 - Develop treatment goals together with patient and family
 - Encourage active self-assessment and self-management of asthma
- Encourage adherence by:
 - choosing a treatment regimen that achieves outcomes and addresses preferences that are important to the patient/ parent (Evidence B)
 - reviewing the success of the treatment plan with the patient/parent at each visit and making adjustments as needed (Evidence B)
 - Tailor the asthma self-management teaching approach to the needs of each patient
 - Maintain sensitivity to cultural beliefs and ethnocultural practices (Evidence C)

42

NJH Adherence/Communication

Some Strategies the Group Practice/System Might Use to Improve Adherence

- Continually assess and strive for an atmosphere that fosters patient-centric care
- Track adherence rates to medication, ED visits
- Evaluate data to identify barriers to adherence
- Conduct patient and provider surveys to identify potential barriers to adherence/optimal patient care
- Institute programs that encourage adherence
- Promote patient education that provides pathways to adherence
- Implement guidelines for managing non-adherence

43

NJH Adherence/Communication

Motivational Interviewing: A Unique Technique for Assessing and Addressing Adherence

Client-centered directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence

O pen-ended Questions	Questions that cannot be answered with a "yes," "no," or "three times a week," etc
A ffirmations	Make sure they are congruent and genuine to build rapport
R eflective Listening	Key to success: listen carefully to your patients to understand what has and hasn't worked
S ummaries	Reflect back to your patient what he/she has been saying

Reference: Wagner C, Connors W, in cooperation with the Motivational Interviewing Network of Trainers, William R. Miller, PhD, Stephen Rollnick. Motivational Interviewing: interaction techniques. <http://motivationalinterview.net/clinical/interaction.html>. Accessed May 2, 2014

44



George Bernard Shaw said:

“The single biggest problem with communication is the illusion that it has occurred.”

Key strategies to facilitate good communication

- A congenial demeanor (friendliness, humor and attentiveness)
- Allowing the patient to express their goals, beliefs and concerns
- Empathy, reassurance, and prompt handling of any concerns
- Giving encouragement and praise
- Giving appropriate (personalized) information
- Providing feedback and review

Specific strategies for reducing the impact of impaired health literacy.

- Order information from most to least important
- Speak slowly and use simple words (avoid medical language, if possible)
- Simplify numeric concepts (e.g. use numbers instead of percentages)
- Frame instructions effectively (use illustrative anecdotes, drawings, pictures, table or graphs)
- Confirm understanding by using the 'teach-back' method (ask patients to repeat instructions)
- Ask a second person (e.g. nurse, family member) to repeat the main messages
- Pay attention to non-verbal communication by the patient (e.g. poor eye contact)
- Make patients feel comfortable about asking questions

47

Steps to develop and Active Partnership with Family

- Identify and address patient and family concerns about asthma and asthma treatment
 - Identify patient/parent/child treatment preferences regarding treatment and barriers to its implementation
 - Develop treatment goals together with patient and family
 - Encourage active self-assessment and self-management of asthma
- Encourage adherence by:
- choosing a treatment regimen that achieves outcomes and addresses preferences that are important to the patient/ parent (Evidence B)
 - reviewing the success of the treatment plan with the patient/parent at each visit and making adjustments as needed (Evidence B)
 - Tailor the asthma self-management teaching approach to the needs of each patient
 - Maintain sensitivity to cultural beliefs and ethnocultural practices (Evidence C) 2007 Guidelines

48

Monitoring Patient Provider Communication and Satisfaction. Filled out before visit!

- ‘What questions have you had about your child’s asthma daily self-management plan and action plan?’
‘What problems have you had following the daily self- management plan? The action plan?’
- ‘How do you feel about making your own decisions about therapy?’
‘Has anything prevented you from getting the treatment you need for your asthma from me or anyone else?’
- ‘Have the costs of your child’s asthma treatment interfered with your ability to get asthma care?’
‘How satisfied are you with your asthma care?’
‘How can we improve your asthma care?’
- *NAEPP Guidelines for the diagnosis and management of asthma. Expert Panel Report 2007;3.*

49

Communication isn't always easy!

- A warm smile moves mountains
Greet and express interest in your patient
Use tone, pace, eye contact and posture to show care and concern
Use simple language and basic concepts
Don’t overload the patient or parent
Be sensitive to cultural differences
- *Bayer-Fetzer Conference on Physician-Patient Communication in Medical Education. Essential elements of communication in medical encounters: the Kalamazoo Consensus Statement. Acad Med 2001;76:390–93.*

50

NJH Adherence/Communication

Promoting Adherence and Effective Communication: Summary

- Patients often take less than half of their prescribed controller medication, and surprisingly many stop taking their controller medication altogether after an initial filling at their pharmacy.
- Decreasing adherence contributes to poor control and increased exacerbation risk, in turn driving up health-care costs.
- Complex and time-consuming adherence interventions are difficult to integrate into everyday clinical practice.
- Evidence-based, time-efficient strategies can be adopted by most providers to increase patient adherence.
- Successful strategies utilize principles of patient-centered care and effective communication, including collaboration on treatment goals and plans.

51

NJH-Adherence/Communication

ARC: Asthma Report Card

ASSESS

- Diagnosis
- Symptom control & risk factors (including lung function)
- Inhaler technique & adherence
- Patient preference

ADJUST TREATMENT

- Asthma medications
- Non-pharmacological strategies
- Treat modifiable risk factors

REVIEW RESPONSE

- Symptoms
- Exacerbations
- Side-effects
- Patient satisfaction
- Lung function

52

NJH Adherence/Communication Team-based Approach to Managing Patients With Asthma

Key Challenges Have Been Identified for Achieving Better Quality of Care¹

- Cost & time
- Adherence & health literacy of patients
- Monitoring, follow-up, & patient tracking
- Need for adequate standardized chronic disease guidelines
- Need for reliable outcome measures

“In chronic disease management, the gap is between what we know and what we do.”²

References: 1. Data on file. Novartis Market Research, Novartis Pharmaceuticals Corporation, 2009. 2. Institute for Healthcare Improvement. Chronic Care Management. <http://www.ihi.org/Topics/ChronicCare/Pages/default.aspx>. Accessed May 2, 2014.

53

NJH Adherence/Communication

What Could an Ideal Approach to Meet These Challenges Look Like?

- Use a team approach using PBL
- Eliminate barriers to care
- Utilize advanced information systems
- Consider more functional offices
- Support a whole-person orientation with SDM
- Provide care in a community context
- Focus on quality and safety
- Communicate available services and resources

54

NJH-Team-based Approach to Managing Patients With Asthma

Team-Based Care: Every Member Plays a Part

Shared Responsibilities to Reach A Common Goal*

	Taught patient to monitor for and avoid triggers	Motivational interview	Checked medication adherence	Updated patient portal	Distributed educational tools	Lifestyle education (diet/exercise)	Outreach to patient after appointment
MD		☐ date	☐ date				
Nurse	☐ date			☐ date	☐ date	☐ date	
Office Staff	☐ date			☐ date		☐ date	☐ date
Pharmacy		☐ date	☐ date		☐ date		

*Sample Task List

Utilize face-to-face communication, e-mails, phones, and electronic health records to streamline, to educate, to succeed

55

NJH-Team-based Approach to Managing Patients With Asthma

Create Your Own Journey to better Communication/Adherence

- Every asthma patient’s journey (and yours!) will be different; however, common themes may exist
- Consider your patients’ perspectives and ways to break down barriers **using Shared Decision Making Aids**
 - Coulter et al BMC Decision Making 2013 13 (Suppl) International Patient Decision Aid Standards Collab. Checklist
 - Assess health literacy, worry, confusion, language/cultural issues, poor adherence, support system
- Explore options to motivate and improve self-management
- Is each patient taking medications properly and monitoring symptoms and use of reliever regularly and accurately?
- Consider your office environment: Is it user-friendly?
- The whole is greater than the sum of its parts: Consider group education and group appointments as options

56

Key Points on Adherence

- Patients often take less than half of their prescribed controller medication, and surprisingly many stop taking their controller medication altogether after an initial filling at their pharmacy.
- Decreasing adherence contributes to poor control and increased exacerbation risk, in turn driving up health- care costs. Most of the time!
- Complex and time-consuming adherence interventions are difficult to integrate into everyday clinical practice.
- Evidence-based, time-efficient strategies can be adopted by most providers to increase patient adherence.
- Successful strategies utilize principles of patient- centered care and effective communication, including collaboration on treatment goals and plans.
- New strategies-

57

Take Home Messages about Adherence

- **Poor adherence to treatment of chronic diseases is a worldwide problem of striking magnitude**
- **The impact of poor adherence grows as the burden therapy grows and then chronic disease grows worldwide**
- **The consequences of poor adherence to long-term therapies are poor health outcomes and increased health care costs**
- **Improving adherence also enhances patients' safety**
- **Adherence is an important modifier of health system effectiveness**
- **Increasing the effectiveness of adherence interventions may have a far greater impact on the health of the population than any improvement in specific medical treatments”¹**

58

Take Home Messages about Adherence

- Health systems must evolve to meet new challenges
- Patients need to be supported, not blamed
- Adherence is simultaneously influenced by several factors
- Patient-tailored interventions are required with SDM
- Adherence is a dynamic process that needs to be followed up
- Health professionals need to be trained in adherence-SDM
- Family, community and patients' organizations: a key factor for success in improving adherence
- A multidisciplinary approach towards adherence is needed

59

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THANK YOU

