Barriers to Adherence in Pediatric Asthma Care

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April 2019
Learning objectives

• Describe evidence for various barriers to patient adherence with asthma care

• Consider strategies already in use or contemplated for assessing each individual patient and family with regard to their ability and willingness to adhere to recommended asthma care

• Develop a plan to improve documentation of intake history and interval history to identify common barriers to adherence such as homelessness, transportation issues, cost of medication, or belief systems which contradict recommended therapies.

• Determine the complexity of recommendations for each patient in regard to likelihood of adherence and prioritize those most important in shared decision making
What do we know about adherence to asthma guidelines in children?

• We’ve already addressed the following issues
  • Health literacy and numeracy and how to assess them and/or using universal literacy precautions to target information
  • Education about “gizmos” and gadgets and use of “teach back” or “show me” to demonstrate patient/parent ability to adhere to recommended use
  • Asthma action plan and documentation of acute asthma visit instructions in the “after visit” document
  • Reminders for influenza vaccine and return visits by phone or portal may be helpful
What does the literature say?

In contrast with the widespread beliefs that access to medical care, health insurance, and continuity of care are the major barriers to quality asthma care, the barriers most frequently reported by parents were related to patient and family characteristics, health beliefs, or to their social and physical environment.

“To improve asthma management and health outcomes for urban, minority children with asthma, it is critical to tailor education about asthma and its treatment, and address quality of life issues for both children and parents.”

Parental beliefs

• Discussed to some extent in terms of health literacy and culture
  • Parents may be led by “myths” that cold temperatures outside “cause” asthma or that antibiotics are what is needed for asthma, etc.
  • Parents may have cultural beliefs that do not allow them to trust Western medicine providers over “curanderas” or other providers of folk medicine and may prefer to use teas, etc.
  • Parents may not recognize that cough is part of asthma and an indicator for use of inhaler rather than cough syrup.
Medication adherence patterns

• Parents often have suspicion or concern about “too much medication”
• Reliance or “addiction” to albuterol and other beta agonists
• Beliefs that antibiotics are indicated (often due to use of diagnoses such as “bronchitis” and co-prescription in the past of asthma medications with antibiotics
• Concerns with use of steroid medications as misunderstood as anabolic steroids or with concerns about growth, etc. or that steroids are “too strong”
Medication vs Non-Medication Adherence

• Adherence to medication typically results in “response based” decisions to continue medication

• Adherence to non-medication recommendations may not result in perceived efficacy-referrals (allergy, pulmonology, case management), environmental and lifestyle recommendations are less likely to yield adherence
The CQN TPS Asthma QI Project ...

• Has focused on PROVIDER adherence to national guidelines
  • Some elements of guidelines have proven outcomes that are statistically significant
  • Other elements may or may not have evidence for adherence but are generally felt to be beneficial for some patients in some areas under certain circumstances
    • E.g., lack of evidence for an Asthma Action Plan given at hospital discharge affecting readmission rates
What do we know about the particulars of provider adherence to asthma care recommendations?

• Yawn, et al

• **Results:** In 1176 patients with persistent asthma (285 children, 211 tweens and 680 adults) from 16 family medicine and 6 pediatric practices across the US, documented guideline adherence was highest for prescription of medications (88.0% for SABA and 70.4% for maintenance medications) and lowest for an asthma action plan (3.1%).

• Documentation of control (15.0%) and factors affecting control (inhaler technique education 7.6%, medication adherence assessment 32.5% and allergy evaluation 32.5%) were not common and even less common for adults compared to children.

• 22.2% of the enrolled patients had no asthma-related visit in the year prior to enrollment.

• Adherence to the non-medication elements were higher in practices located in cities >250,000 people and that used electronic medical records.

• Increasing patient age was negatively associated with guideline adherence.

Lack of provider adherence guarantees patient non-adherence

• If they haven’t had guidance given based on the guideline or it is discussed in passing, can’t expect patients to adhere
• Have discussed literacy barriers with printed handouts
• Addressing parent “beliefs” can be time consuming
• Financial aspects of adherence (purchase of extra inhalers for all settings where child may require them) may be laced with shame in discussion.
• Provider must be assertive in designing a work flow that encourages frank discussion of adherence, makes phone availability for parents to contact re: barriers to adherence (inability to get a nebulizer or spacer or appointment with specialist, etc.)
Social Disparities

• Increasingly, pediatric practices are screening for
  • Food insecurity
  • Domestic violence
  • Homelessness/housing insecurity (Do you have a safe place to call home?)

Schickedanz and Chung, Pediatrics, 142, 2018

IS YOURS? If so, chances are you are already helping families including those of children with asthma!

Do we remember to take an INTERVAL social history or only on initial visit?

Do we ask after prescribing MDI, spacer, nebulizer if the parent had difficulty acquiring it?

Do we make sure to let parents know that if they DO have trouble getting the prescriptions/equipment, that they can call us? Is it written at the bottom of the After-visit Sheet? Asthma Management Plan?
Wisnivesky et al. found that the adherence to the NAEPP guidelines was 62% for ICS use, 9% for asthma action plan use, and 10% for allergy testing.

Responsibility for outpatient asthma care is currently dispersed among pediatricians, family practitioners, pediatric pulmonologists, and allergists. Among this spectrum, there is a discrepancy in knowledge base, treatment plans, and referral patterns.

In a survey completed by 202 inner-city PCPs, the most common adherence barrier for healthcare providers was the lack of outcome expectancy and poor provider self-efficacy.

There has also been a widely reported concern by general pediatricians about the side effects of ICS.

For these reasons, many PCPs often feel more comfortable referring children to an allergist or pediatric pulmonologist for the diagnosis and management of asthma.
Benefits of subspecialty adherence after asthma hospitalization and patient perceived barriers to care.

Izadi N, Tam JS Ann Allergy Asthma Immunol. 2017 May;118(5):577-581

The study population was composed mostly of minority children 0 to 18 years old seen at a large university-affiliated stand-alone children's hospital who had a hospital discharge diagnosis of asthma from 2009 to 2013.

Of the referred sample, the adherent group had significantly fewer visits to the intensive care unit, days in the pediatric intensive care unit, and days in the hospital. Providing more specific hospital discharge instructions increased AI follow-up and hospital teaching given on the baseline admission decreased hospital visits. Phone interviews showed that nonadherent patients most commonly missed follow-up because the parents believed it unnecessary because their child showed acute improvement or from advice from their primary care physician
GoT MeDS?-A tool for screening for barriers to medication adherence

Role of Physicians

- Physicians are unaware of how much prescription drugs cost to patients\(^5\)
- Patients and physicians agree that more discussion of patients’ out-of-pocket costs is necessary\(^1\)
- Patients wish to be educated on the cost and quality of treatment options\(^4\)

\(^1\)Allan GM et al 2007; \(^1\)Alexander et al 2003; \(^4\)Edmunds R et al 2007
COST-SAVING STRATEGIES: GOT MeDS?

Generics
Ordering in bulk
Therapeutic alternatives
Medication Review
Discount drugs
Splitting pills

Adapted from Chan M 2010
GOT MeDS-Can create laminated pocket cards

**Screening for Cost Burden**

When taking medication hx, ask patients:

1. “Do your medications cost too much?”

2. “Have you ever cut back on medications because of cost?”

3. “Have you ever cut back on other things (e.g. food, leisure) due to high drug costs?”

**Cost-Saving Strategies: GOT MeDS?**

- **G**nerics: prescribe when possible; educate patients on safety/efficacy
- **O**rdering in bulk: 3-month supplies of drugs from pharmacy or by mail
- **T**herapeutic alternatives: OTC meds; cheaper meds in same class
- **M**edication review: regularly review med list; remove unnecessary meds
- **D**iscount drugs: $4 drugs (Walmart, Target, etc.); discount cards
- **S**plitting pills: prescribe higher dose and advise patients to split pills

**RESOURCES**

- Online: Consumer Reports Best Buy Drugs; AARP Drug Savings Tool
- Mobile Apps: Generics, LowestMed, iPharmacy, Epocrates RX
Social Disparities/Determinants of Health Screening Tools

3 Examples of easily downloaded tools:

- Social Needs Screening Tool
- PRAPARE Toolkit-Protocol for Responding to and Assessing Patients Assets, Risks, and Experiences
- Accountable Health Communities (AHC) Health-Related Social Needs (HRSN) Screening Tool
PATIENT FORM (short version)

Please answer the following.

HOUSING
1. What is your housing situation today?
   - [ ] I do not have housing (I am staying with others, in a hotel, in a shelter, living outside on the street, on a beach, in a car, abandoned building, bus or train station, or in a park)
   - [ ] I have housing today, but I am worried about losing housing in the future
   - [ ] I have housing

2. Think about the place you live. Do you have problems with any of the following? (check all that apply)
   - [ ] Bug infestation
   - [ ] Mold

TRANSPORTATION
5. In the past 12 months, has lack of transportation kept you from medical appointments, meetings, work or from getting things needed for daily living? (check all that apply)
   - [ ] Yes, it has kept me from medical appointments or getting medications
   - [ ] Yes, it has kept me from non-medical meetings, appointments, work, or getting things that I need
   - [ ] No

UTILITIES
6. In the past 12 months has the electric, gas, oil, or water company threatened to shut off services in your home?
   - [ ] Yes
   - [ ] No
   - [ ] Already shut off
10. How often does anyone, including family, scream or curse at you?
   □ Never
   □ Rarely
   □ Sometimes
   □ Fairly often
   □ Frequently

**ASSISTANCE**

11. Would you like help with any of these needs?
   □ Yes
   □ No

*Questions 1-10 are reprinted with permission from the National Academy of Sciences, courtesy of the National Academies Press, Washington, D.C.*

**REFERENCE:**

PRAPARE Implementation and Action Toolkit - NACHC

4/9/2019

Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences

PRAPARE Implementation and Action Toolkit

The PRAPARE Implementation and Action Toolkit is freely available online and contains resources, best practices, and tools to help healthcare providers address patients' financial well-being.
Accountable Health Communities (AHC) Health-Related Social Needs (HRSN) Screening Tool

**Financial Strain**

11. How hard is it for you to pay for the very basics like food, housing, medical care, and heating? Would you say it is:  
- Very hard
- Somewhat hard
- Not hard at all

**Employment**

12. Do you want help finding or keeping work or a job?  
- Yes, help finding work
- Yes, help keeping work
- I do not need or want help

**Family and Community Support**

13. If for any reason you need help with day-to-day activities such as bathing, preparing meals, shopping, managing finances, etc., do you get the help you need?  
- I don't need any help
- I get all the help I need
- I could use a little more help
- I need a lot more help

14. How often do you feel lonely or isolated from those around you?  
- Never
- Rarely
- Sometimes
- Often
- Always
Summary: Teasing out barriers to adherence for pediatric asthma care

• First, clarify adherence – ours or theirs?
• Second, ensure patient and family centered approach-
  • What does this family believe/think/want/need at THIS time?
    ▪ Shared decision making-
    ▪ What can this patient handle?
    ▪ Should the PCP be in charge or will this family be better off if subspecialty referral is indicated OR might they make some choices (a one visit referral? Continued care?)
  ▪ Third, screen- may be less or more intimidating to screen rather than ask each patient individually - use in waiting room vs exam room
  ▪ Consider a PDSA cycle for screening for health disparities and/or ascertaining adherence barriers sensitive to parent beliefs!
Adherence to therapy is dependent on:

• Provider knowledge, skills, resources
• Parent, patient and family knowledge, skills and resources
• Variable with circumstances (just as in our own lives/families- how many of us adhere to medications/recommendations?)
• May require weeks/months/years of trial and error
• Needs are very likely to change over time

• Be aware, efficient, effective, timely, equitable, patient and family centered and that is the essence of quality!
Additional Information and Resources
Texas Medicaid Preferred Drug Lists

- [https://www.txvendordrug.com/formulary/prior-authorization/preferred-drugs](https://www.txvendordrug.com/formulary/prior-authorization/preferred-drugs)

- Updated twice a year
Texas Medicaid Transportation Program

• 1-877-MED-TRIP (877-633-8747)

• Houston/Beaumont area: 1-855-687-4786

• Dallas area: 1-855-687-3255

• Typically need to call 2 business days ahead
Resources for Uninsured/Underinsured Patients

• Walmart, CVS, HEB low cost prescription programs - typically do not include usual asthma medicines

• GoodRx Prescription Drug Savings Card  goodrx.com

• Help from local agencies