ECHO: What's next?
When to refer your pediatric asthma patient to a specialist

Terri Magruder, MD, MPH
11/20/2024

UAB MEDICINE PEDIATRICS

Children's of Alabama

Case

- CC: "he keeps getting sick"
- HPI: 6yo male with chronic cough, recurrent wheezing with respiratory illness and season change for several years
- Typically doesn't make it through respiratory illness or season change without 7-10 days of cough and wheezing
  - Cough described as barky, worse at night
- All illnesses typically require MD visit and oral steroids to improve, frequent antibiotics with illness
- He has a daily cough and coughs with activity when he is well
  - Cough is dry
- Frequent school absence

History

- PMH: full term, no complications

1yo when respiratory symptoms developed

-No hospitalizations, but 1-2 ED visits per year related to symptoms

-No history of recurrent pneumonia or other severe infections

-Tympanostomy tubes placed at 2yo

-No history of food allergies or eczema

-1-2 episodes of croup

-Allergy testing by local allergist + dust mites and tree pollens

- FH: Father with asthma as a child, no other chronic lung disease
- SH: lives with parents, attends kindergarten, no tobacco exposure, no environmental concerns

- Medications
  - Advair 230/21 2 puffs twice a day
  - Qvar 40 2 puffs twice a day
  - Montelukast 5mg daily
  - Cetirizine 10mg daily
  - Flonase daily
  - Albuterol nebs twice a day, added Budesonide during illness

Physical Exam

- ROS: + mild intermittent allergy symptoms, picky eater, occasional constipation with associated abdominal pain
- Vital signs stable
- Mildly underweight
- Appears tired, but non-toxic, no acute distress
- Remainder of physical exam normal

- CXR: normal
- Spirometry normal
- Labs: Nnl: CBC, Immunoglobulins, Complement AH50 and CH50, Lymphocyte markers, and Tetanus titers

Additional Diagnostic Evaluation and Management

- Screening for iatrogenic adrenal insufficiency
- Reducing daily medications
- Performing PFTs when ill
- Airway evaluation
  - Aerodigestive team

- Final Diagnosis:
  - Severe Persistent Asthma
  - Eosinophilic Esophagitis

When to refer to asthma specialist?

- Patient with poorly controlled asthma or "asthma" not behaving as asthma
- History of 2 or more hospitalizations in the past 12 months
- History of life threatening asthma exacerbation
- Patient and caregivers need additional chronic disease management education
- Symptoms concerning for a comorbid condition that needs further evaluation
- Evaluation for biologics

What to Refer to Allergy/Immunology

- Any uncontrolled OR moderate/severe persistent asthmatic
  - A/I preferred:
    - Food allergy history/concerns
    - Uncontrolled eczema or seasonal allergies
    - Immunodeficiency concerns
    - Eosinophilic esophagitis

- Anaphylaxis: Any & All
- Eczema: Severe/Uncontrolled – do NOT delay introduction of/eliminate foods!
- Uncontrolled rhinitis despite treatment
- Chronic urticaria that has failed quadruple normal dosing of cetirizine/levocetirizine/fexofenadine

What to Refer to Pediatric Pulmonary

- Any uncontrolled OR moderate/severe persistent asthmatic
  - Pulmonary preferred:
    - Concerns for Cystic Fibrosis or Primary Ciliary Dyskinesia
    - Concerns for Aspiration
    - Comorbid congenital heart disease
    - Concerns for airway abnormalities, malacia, vascular ring
    - Concerns for OSA

- Asthma clinic
  - Severe asthma or asthma refractory to standard therapies
  - Recurrent hospitalizations and/or urgent care visits
  - Co-morbid conditions that contribute to difficult disease control
  - Unique asthma self management education needs

  https://www.childrensal.org/services/asthma-clinic/education-and-resources

UAB MEDICINE PEDIATRICS

Children's of Alabama