Asthma and Atopic Conditions

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UAB MEDICINE
PEDIATRICS

Children's of Alabama

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  - Did provide disclosure information.
  - Have no relevant financial arrangements or affiliations with commercial interests
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- Commercial Support

  This activity receives no commercial support.

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Common themes with asthma management

- Chronic
- Relapsing and Remitting
- Daily adherence to chronic therapy
- Interference with sleep and daytime functioning
- Encouragement and support
- Subspecialty referrals

(Atopic Dermatitis) Eczema

- Dry skin and itching are the most consistent signs
  - Infants and young children
    - Cheeks, scalp, and extensor surfaces or may be diffuse
  - Older children and adolescents
    - Plaque like more flexural distribution (knees and elbows common)
    - Wrist, ankles, and neck are often affected
- Typically relapsing and remitting
- Treatment focuses on improving skin moisture, decreasing pruritus, decreasing infection risk
  - Emollients thick creams and ointments (low water content)
  - Avoiding scented detergents, lotions, soaps, fabric softeners, allergens
- Topical corticosteroids as needed
- Topical calcineurin inhibitors for more moderate to severe eczema
- Biologics

Allergic rhinitis

- Allergic rhinitis
  - Typically not diagnosed in infants
  - Itchy watery eyes, sneezing, nasal congestion, clear rhinitis, post-nasal drip, cough
  - Allergic shiners, cobblestoning in posterior oropharynx, nasal crease, pale blue edematous turbinates
- Treatment
  - Topical corticosteroids
    - Regular use is preferred over as-needed use
      - Can be used as young as 2 yo
  - 2nd generation antihistamines
    - Loratadine, Cetirizine, Fexofenadine (first line for children under 2yo)
    - Benadryl not recommended
  - Antihistamine nasal sprays
    - Adjunctive therapy for children > 6yo
      - Olopatadine and Azelastine
  - Leukotriene blockers
  - Ophthalmic antihistamine drops
- Skin testing and IgE RAST testing
- Avoidance measures

How to use a nasal spray properly

1. Blow your nose gently.
2. Shake the spray bottle to make sure the medicine is well mixed. Remove the cap.
3. Spray once or twice into the air until a good mist is dispensed.
4. Tuck your chin in and tip your head forward slightly.
5. To spray in the left side, use 1 or 2 of your left fingers to widen your left nostril slightly by pulling the skin near the nostril to the side. Use your right hand to hold the nasal spray. Put the nozzle into the left nostril, and spray away from the membrane in the middle of the nose (called the nasal septum). Spraying at the septum can cause irritation and sometimes minor bleeding. Think of aiming the spray towards the outside corner of your left eye. If this hand positioning feels awkward, you can skip the step of pulling the nostril open and just spray with either hand, but it is important not to spray directly at the septum.

6. Do not sniff until the medicine is dispensed, but you can close your mouth and inhale gently to keep the medicine from running out of the nose. If you sniff too vigorously, the medicine will go down your throat, where it does nothing for your nasal symptoms.
7. To spray the right side, use 1 or 2 of your right fingers to pull your right nostril slightly open and use your left hand to hold the nasal spray. Follow the same instructions as above, pointing the spray towards your right ear.

If you are also doing saline nasal irrigations, do those first and then wait 5 to 10 minutes before using your nasal spray medication. Waiting allows the irrigation to drain completely from the nose and increases the chance that medicine sprayed into the nose afterwards will be absorbed as fully as possible by the clean nasal lining.

Food Allergy

- Reactions can range from mild, isolated symptoms (eg, nasal or oral pruritus, sneezing, limited urticaria, mild nausea/gastrointestinal upset) to varying degrees of anaphylaxis including anaphylactic shock
- Milk, Egg, Peanut, Tree nuts, Wheat, Fish, Shellfish
- Anaphylaxis Education and Epipen training imperative
  - AAAI
- Allergy referral indicated and chronic follow-up indicated
  - History is critical; skin and serum IgE testing, food challenges
    - Food should not be eliminated from diet solely because of + IgE test
- Growing treatment options for food allergy

https://www.aaaai.org/conditions-treatments/allergies/anaphylaxis

Eosinophilic Esophagitis

- An allergic condition causing inflammation in the esophagus can lead to esophageal stricture
- Chronic
- Symptoms:
  - younger children with fussiness, difficulty feeding, vomiting, poor growth
  - older children and adults with chest pain, heartburn, abdominal pain, difficulty swallowing
- Diagnosis:
  - Endoscopy and biopsy
- Treatment: Food avoidance, proton pump inhibitors, swallowed topical corticosteroids, Dupilumab
- GI and Allergy specialists are necessary