Asthma Medications in Children

There are two basic classes of medications for treatment of asthma, or reactive airways in children. When diagnosing and treating children under age 5 years, I tend to use the term ***reactive airways*** rather than asthma. Although they describe similar processes, mainly inflammation of the lungs and constriction of the breathing tubes (wheezing). The term reactive airways tends to imply a more temporary condition, while asthma may or may not be more chronic. The term "pediatric asthma" is sometimes used to describe wheezing in childhood that is "outgrown" between 5-7 years. This is essentially the same as reactive airways for all intents and purposes.

Rescue Medications:

The first category of medications that are commonly used are rescue medications. These are all inhaled either via nebulizer or an inhaler with a spacer. Common examples are albuterol (Ventolin, Proventil, ProAir) and levalbuterol (Xopenex). Less commonly ipatroprium bromide (Atrovent) is used as well. These medications are given when an individual is wheezing, coughing or short of breath. They usually work within 5-10 minutes and so will improve the patient's symptoms fairly quickly. Depending on the medication, they may be repeated as often as every 4 to 6 hours as needed, to relieve symptoms. Most wheezing is worse at night and so a person may only need rescue medications occasionally during the day but require them at bedtime, during the night and first thing in the morning when they are having a flare in symptoms. If these medications don't seem to be helping or if they are needed frequently for more than a few days, then contact the office for a visit.

Maintenance Medications:

There are several types of maintenance medications. The most commonly used are inhaled steroids (such as Pulmicort , Flovent, Asmanex, or Qvar). These are all inhaled medications, that are used once to twice daily. Often times these medications are used at a lower dosage when the patient is minimally symptomatic and the dosage is increased at the first sign of a cold, illness or allergies. Despite the "stigma" around use of steroids, these medications are very safe for use in children. Even though they are inhaled into the body, they remain mostly on

the lining of the lungs, much the same way that a topical cream remains on the skin. There is very minimal systemic absorption. Long term studies show that children with reactive airways who are well maintained on inhaled steroids, actually have better long term growth then children who are chronically ill/wheezing not on inhaled steroids.

Another commonly used maintenance medication is montelukast (Singulair). This is a once daily tablet/chewable that also comes as a powder for toddler aged children. This medication works to block certain pathways that cause airway inflammation that leads to wheezing. In addition to reducing wheezing, the medication also helps with seasonal allergies, making the drug an excellent choice for those who have wheezing triggered by allergies. I often recommend use of Singulair in conjunction with a long acting antihistamine such as Zyrtec or Claritin as they complement each other's actions.

The third type of maintenance medication is the combination inhalers such as Advair, Symbicort, or Dulera. These drugs combine an inhaled steroid with a long acting bronchodilator. They are not meant to be used as rescue medications however, Symbicort and Dulera are fast acting. These medications are generally used in patients with more significant chronic symptoms for whom inhaled steroids or Singulair alone was not effective.

Oftentimes when a child presents with significant wheezing, I will put them on a higher dose of an inhaled steroid for a week or so, until their symptoms (and need for albuterol) decrease. Then I will decrease the dose for a period of time that is determined by the chronicity of symptoms.

One final note: **If your child is on a maintenance medication such as Pulmicort and is doing well with minimal symptoms, don't stop the medication without discussing this with me.** The child is doing well *because* of the maintenance med, not *despite* it. Stopping the regimen may result in a significant increase in wheezing symptoms and a trip to the urgent care or ER.

--Be Well

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