

# Study shows improving pediatric asthma care is possible

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Pediatric asthma is the most common chronic childhood condition and a leading cause of pediatric hospital admissions.

New study findings published in the March issue of *Hospital Pediatrics* shows improved personalized inpatient assessments can enhance the accuracy of the prescribed [asthma](#) therapy a child receives.

Asthma can be severely disabling and even deadly. Asthma kills more than 3,600 people annually including several hundred children. It also leads to more than 300,000 adult and over 136,000 pediatric hospitalizations annually.

"The key to caring for pediatric asthma patients is that the most appropriate medication at the right dosage must be prescribed, and the child has to take their medication every day," says Dr. Alexander Hogan, assistant professor in the Department of Pediatrics at UConn School of Medicine and hospitalist at Connecticut Children's Medical Center who led the quality improvement study while a fellow at The Children's Hospital at Montefiore in Bronx, New York.

The study showed the quality of asthma care improved after clinicians were equipped with streamlined patient care decision tools, an electronic medical record system, and access to a mobile phone application to guide each patient's personalized care.

One important decision-making tool was requiring physicians to ask

each patient 6 key asthma control questions:

1. Number of [asthma symptoms](#) per week?
2. Number of nighttime awakenings per month?
3. Inhaler use for symptoms per week?
4. What is the degree of asthma's interference with your normal activity?
5. Number of [asthma exacerbations](#) requiring oral corticosteroids in the last year?
6. How many doses per week are you missing of your current controller therapy?

"If your child has asthma and your physician doesn't ask these critical questions they cannot determine the best medications for your child," stresses Hogan. "While it is challenging to be consistent on the frontlines of medicine, providers can't forget to ask these key questions that are an important part of the asthma patient care puzzle."

The study demonstrated the effectiveness of asking these key questions. The study improved the frequency of asking the questions from 40 to 98 percent and increased the accuracy of the medications prescribed up to 80 percent in one year.

Hogan adds, "Our study findings show small changes truly do add up. If you are concerned your child's asthma is not well controlled, it is imperative you raise these concerns with your pediatrician."

People with asthma persistently suffer from airway inflammation and constriction due to various irritants. Irritants that inflame the lungs are called triggers. Asthma triggers include: pollen, viruses, cigarette smoke, dust mites, pollution, cockroaches, exercise,

mold, pet dander among many others.

Some children with asthma have mild disease need a rescue inhaler once in a while. However, children with [persistent asthma](#) need to use a daily asthma controller medication, such as an inhaled corticosteroid, to prevent [asthma attacks](#).

Inhaled corticosteroids taken everyday decreases the chronic inflammation found in asthma. These medications have been proven to decrease the frequency and severity of asthma exacerbations. They also have been shown to decrease missed days of school, emergency room visits and hospital admissions.

Hogan's tips for children with persistent asthma:

- Use the controller medication inhaler twice daily with a spacer (a clear mask tool for easier pediatric application).
- To improve adherence, keep your child's inhaler next to their toothbrush as a reminder to use the inhaler each morning and night.
- Stay aware of your symptoms: difficulty breathing, wheezing, shortness of breath, and cough.
- Use a mobile app to keep track of your symptoms and potential triggers.
- Follow-up with your primary pediatrician or asthma doctor every 3 to 4 months.
- Make an appointment with your child pediatrician if you are concerned their asthma is not well controlled.

"We are going to keep researching new ways at UConn Health and Connecticut Children's to further improve [asthma care](#) and our patient outcomes," says Hogan. "Connecticut Children's is well-known for creating clinical pathways to deliver optimal care

for our pediatric asthma patients, and I look forward to continuing that tradition."

**More information:** [hosppeds.aappublications.org/c ...  
2/09/hpeds.2017-0184](https://hosppeds.aappublications.org/c...2/09/hpeds.2017-0184)

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