

Parents often wait too long to treat children's asthma symptoms

February 11 2010

Parents of young children with asthma often recognize signs that their child is about to have an asthma attack but delay home treatment until the attack occurs, researchers at Washington University School of Medicine in St. Louis report.

Results of the study, published in the *Annals of Allergy, Asthma and Immunology*, show there are missed opportunities to intervene early and thus relieve a child's symptoms, possibly reduce the extent of the attack and prevent visits to the emergency room.

The study stems from comments received by two lay asthma coaches employed by Washington University School of Medicine. The coaches are trained to help educate families dealing with asthma by offering information and social support. They also have asthma themselves or a family member who has it.

While talking to parents of children with asthma, the coaches noticed that parents were often unsure of exactly how to use albuterol, a bronchodilator that relaxes muscles in the airways and increases airflow to the lungs, when they noticed signs that their child's asthma symptoms were worsening. The study followed up on those observations to determine if they are true among a larger group.

Asthma is one of the most common childhood diseases in the United States. Every year, two of every three children with asthma have at least one attack, or exacerbation. These exacerbations often result in missed

school days, visits to the emergency room and hospitalizations. But researchers at the School of Medicine say some of these exacerbations could be prevented with early home treatment with albuterol.

For the study, the coaches telephoned 101 parents of children ages 2-12 who had recent visits to the emergency department at St. Louis Children's Hospital with an asthma exacerbation or who had called the hospital's After Hours Call Center. More than 60 percent of the families had Medicaid insurance. The coaches surveyed the parents about how they detected that their child was about to have an asthma attack and what they did to prevent or treat it.

Parents reported noticing signs such as coughing, wheezing, shortness of breath, chest tightness or pain, cold or allergy symptoms, or even behavioral signs such as becoming quiet or more temperamental.

"Every time the child had an exacerbation, many parents noticed the same medley of signs preceding it," says Jane Garbutt, M.B., Ch.B., associate professor of medicine and of pediatrics. "But even though they noticed the signs consistently, they often didn't do anything about it. If parents had known to give albuterol earlier, they may have been able to manage things at home and avoid a trip to the emergency room," says Garbutt, also director of the Washington University Pediatric and Adolescent Ambulatory Research Consortium.

Garbutt says one of the reasons parents may not begin treatment is that they believe they are following doctor's instructions.

"The asthma plan from the doctor often says to start using albuterol when parents notice the child is wheezing or coughing or short of breath, but the doctor may have a different definition for those symptoms than the parent," Garbutt says.

Another problem the researchers found was that parents may not notice some of the early signs that predict an exacerbation. One in four parents who was interviewed reported seeing late signs of an exacerbation in the child, including gasping for breath or sucking in the rib muscles when breathing.

"Those kids have to go to the [emergency department](#) because they are too far along in their exacerbation to do anything at home," Garbutt says. "If we can talk to parents and find out that's the issue, we can teach them to take action sooner."

In some instances, parents knew they needed to give their child albuterol, but weren't sure how much or how often.

"Parents varied in terms of how often they used it, if they used it with a nebulizer, how often they repeated it and how they determined if it was working," Garbutt says. "A careful assessment of exactly which medicines are used and how they are administered and dosed could identify problems. We think that is something that can be addressed with education."

Prednisone is a corticosteroid that prevents the release of inflammatory-causing substances in the body. Many parents said they kept the drug on hand at home in case of an [asthma attack](#), but few parents in this study used it, instead calling the doctor's office or going to the [emergency room](#).

Garbutt and fellow researchers are conducting a follow-up study in which the asthma coaches are working with physicians to promote earlier use of albuterol as well as other effective self-management behaviors. In addition, the coaches are working with parents to help them identify the early signs of an [asthma](#) exacerbation by giving parents a symptom diary to help parents see symptom patterns.

More information: Garbutt J, Highstein G, Nelson K, Rivera-Spoljaric K, Strunk, R. Detection and home management of worsening asthma symptoms. *Annals of Allergy, Asthma & Immunology*, December 2009, pp. 469-473

Provided by Washington University School of Medicine

Citation: Parents often wait too long to treat children's asthma symptoms (2010, February 11) retrieved 27 April 2024 from

<https://medicalxpress.com/news/2010-02-parents-children-asthma-symptoms.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.