PROJECT INFORMATION

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Comparing Two Ways to Manage Asthma in African-American Children -- The ASIST Study

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What was the research about?

Asthma is a common illness that can make it hard for children to breathe. African-American children are more likely to have asthma than children from other racial groups. Inhalers that include daily medicines, such as corticosteroids, can improve asthma symptoms. Doctors usually adjust the patient's medicine dosage during office visits or by phone. But this approach may not work if parents and children can't visit the doctor regularly or if they often get care in the emergency room. In addition, some families may prefer an approach that doesn't require using an inhaler every day or repeated doctor visits.

In this study, the research team compared two ways of controlling symptoms among African-American children with asthma:

- **Symptom-based adjustment, or SBA.** Patients used an inhaler only when they had asthma symptoms. They used the inhaler along with albuterol, a medicine used during an asthma attack.
- **Provider-based adjustment, or PBA.** Patients used an inhaler daily no matter what their symptoms were. They met with their doctor if they needed to adjust the dosage.

The research team wanted to learn if SBA was similar to PBA in improving asthma control.

What were the results?

After one year, SBA and PBA had similar results for patients with asthma. Patients receiving SBA and PBA didn't differ in

- Asthma control
- Number of asthma attacks
- Lung function
- Quality of life, such as being able to complete daily activities

Patients in both groups had better asthma control at the end of the study than at the start. Patients in the SBA group used less inhaled corticosteroids each month compared with those in the PBA group.

Who was in the study?

The study included 206 African-American children ages 6–17 in St. Louis with mild asthma. The average age was 10, and 54 percent were boys.

What did the research team do?

The research team assigned patients by chance to receive either SBA or PBA for one year. In each group, asthma coaches offered patients or their parents two to four asthma education sessions by phone. In these sessions, coaches helped children and parents recognize symptoms and learn how to use asthma medicines.

Parents of children ages 6–11 completed a survey about how often patients had asthma symptoms at the start of the study and again every three months for a year. Children ages 12–17 completed the survey themselves. The research team also tested patients' lung function at the start of the study and after one year.

Patients, parents, school officials, doctors, and nurse practitioners gave input on the study.

What were the limits of the study?

The research team couldn't be sure that patients took medicines as directed. The study also didn't test how well SBA worked for children with severe symptoms.

Future research could test SBA in other groups or locations.

How can people use the results?

Children with asthma, their parents, and healthcare providers can use these results when considering asthma treatments.

To learn more about this project, visit www.pcori.org/Sumino282.