

Partnering with Schools to Improve Care for Children with Asthma in the Medical Home

Primary care providers face many challenges in effectively managing large, disparate, and often complex cohorts of patients with asthma. Providing quality asthma care in the medical home — care that is accessible, continuous, comprehensive, family-centered, coordinated, and culturally effective — provides a framework for improving asthma outcomes. Partnering with schools can enhance patient education and adherence to treatment plans and lead to improved quality of life.

*On average, 1 in 10 students has asthma. That amounts to 3 students in a typical classroom.
This number can be significantly greater in urban and rural settings.*

The Role of the School Nurse

Historically, school nurses have been called upon to provide asthma management and education, in part, to compensate for the lack of asthma care some students receive elsewhere or lack of patient/family understanding or follow-through on treatment plans. Some challenges with asthma care in schools include the limited scope of practice of the school nurse (eg, may not diagnose, medically manage, or prescribe), insufficient time and resources, and — perhaps most importantly — a lack of care coordination with a primary care provider.

Effective asthma management is more likely to result when the pediatrician, family, and school work together to develop and prioritize key aspects of the patient's Asthma Action Plan. The school — and school nurse, if available — can play a pivotal role as a partner in asthma education and care management that can benefit the student both in school and at home over a sustained period of time.

3 Ways to Effectively Collaborate with Schools to Provide Quality Asthma Care

1) *Provide the school with a copy of your patient's Asthma Action Plan*

Creating a written Asthma Action Plan that is developed in partnership by you, your patient, and his/her parents is a key component of the 2007 Guidelines for the Diagnosis and Management of Asthma from the National Heart, Lung, and Blood Institute (2007 NHLBI Guidelines). As pediatricians integrate this standard into their asthma care, it is important to also provide the plan — either directly or by providing the patient and family with an additional copy to pass on — to the school, whose nurse and teachers may see your patient more often than you and do so in the student's/patient's natural environment. Encourage the school and/or school nurse to communicate with the patient's medical home whenever there are concerns.

With the student's asthma plan in hand, the school and/or school nurse can:

- Provide relief medication as instructed by the parent and pediatrician
- Review the plan with the student, discuss and control medication use (assess adherence to controller medication prescriptions, identify barriers, suggest solutions), and identify knowledge gaps
- Discuss the written plan with a parent/guardian when the child is symptomatic
- Encourage visits to the pediatrician for follow-up and support the patient and family in communicating productively with the medical home
- Notify the student's pediatrician in the case of an emergency and when there are any other concerns

2) *Provide your patient with a valved holding chamber (VHC) or spacer with each metered-dose inhaler (MDI)*

Teaching proper inhalation technique is another key component of the 2007 NHLBI Guidelines. The medication will only help the child if it reaches the lungs through proper technique.

The appropriately skilled school nurse is in an ideal position to promote and teach proper inhalation technique as a component of asthma self-management and could provide this education more often than most pediatricians can. Providing pre-exercise medication takes advantage of great “teachable moments” when there is no crisis and that can be scheduled into the nurse’s and student’s day at a time that does not interfere with academics. The school nurse can reinforce technique and the importance of VHC/spacer use at each opportunity.

3) Collaborate with the school to share and obtain asthma control information

The emphasis on assessing asthma control is a major addition in the 2007 edition of the NHLBI guidelines. Data on symptom variations during the day and at night, exercise/activity tolerance, and frequency of albuterol use could help guide asthma management. The school or school nurse could provide such data about symptoms and medication use during school in a structured format to inform your decision-making and adjustments to the Asthma Action Plan.

Most states require written authorization by a licensed medical provider to administer asthma medication in school, which usually remains valid for one year. Authorization for “albuterol q 4 hours PRN” could result in a student receiving albuterol twice or 200 times during the school year – information that rarely gets back to the provider. However, the data is usually readily available. Most schools must maintain an administration record for each medication that a student takes (though this may not apply to students who are authorized to self-administer their medication).

With parental permission, a school nurse can provide this data to a student’s pediatrician, specifying whether it was used as routine pre-exercise treatment or for acute symptoms. Use for acute symptoms more than 2 times per week indicates asthma that is not well-controlled. Knowing how often the student is using their pre-exercise medication can help determine if it is being under- or over-utilized. Parents are often unaware of their child receiving their medication at school unless there is a major flare or emergency. A pediatrician who receives this data on a monthly or quarterly basis will have “real-time” and objective asthma control data to guide care and frequency of follow-up visits. Using medically-secured faxes or email can provide timely transfer this data. Below is a sample table that can be used by the school to collect data to send to the medical home:

Frequency of Albuterol or Levalbuterol Use in School

Patient/Student: _____
 School: _____
 Nurse: _____

Pediatrician: _____
 Office Phone: _____

	September				October				November			
	Wk 1	Wk 2	Wk 3	Wk 4	Wk 1	Wk 2	Wk 3	Wk 4	Wk 1	Wk 2	Wk 3	Wk 4
Planned (Pre-Ex)												
Acute Sx's												
Absences												

Please call Dr [insert name] at [insert phone number] if any asthma concerns arise or if patient is using PRN medication more than 2 times per week for asthma symptoms.

The following resources have additional information regarding asthma in school:

- [Asthma & Physical Activity in the School](#) (Newly revised booklet by the [National Heart, Lung, and Blood Institute](#))
- [Tools & Resources for Asthma](#) from the [National Association of School Nurses](#)
- [Creating Asthma-Friendly Schools: EPR-3 Recommendations and Priority Messages](#)
- [Top Ten Tips on School-based Asthma Management for School Nurses](#)
- [Asthma-Friendly Schools](#)
- [Poster: Treatment Steps to Follow for an Asthma Episode in the School Setting When a Nurse is Not Available](#)
- [Poster: Nursing Protocol for Student with Asthma Symptoms Who Does Not Have a Personal Asthma Action Plan](#)
- [School-based asthma programs by Bruzzese, Evans, and Kattan](#)

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References

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