

WHAT WORKS

# Teachable moments: Asthma education in the ED

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**EVERY YEAR, NEARLY 2 MILLION PATIENTS** seek care in U.S. emergency departments (EDs) for asthma attacks. That gives the ED staff a great opportunity

to teach patients about managing asthma. There's just one problem—time. In the ED, patient volumes, acuity of patient care needs, and overextended resources severely limit teaching opportunities.

Recognizing these limitations, some experts recommend a “teachable moments” strategy, in which staff members teach patients and caregivers using carefully crafted key messages at specific points during ED care. Besides saving time, this approach can improve patient outcomes by reducing urgent care visits and hospitalizations, as well as improve quality of life. At Children's Hospitals and Clinics of Minnesota, our ED staff used this approach to develop a new model of patient education for children with asthma.

To develop the model, we followed this path:

- Create key asthma messages.
- Determine how key messages can be integrated into patient and family ED visits.
- Teach ED staff about key messages and the teachable-moments concept.
- Deliver key messages to patients and families using tools created for our model.

## Creating key messages

A multidisciplinary team—including ED nurses, respiratory therapists, clinical educators, nurse practitioners, clinical nurse specialists, and pharmacists—identified the critical information patients need when they leave the ED. Because the staff wouldn't have time to cover every aspect of asthma education, we focused on four key messages that are concise, clear, and consistent:

- asthma pathophysiology (chronic lung disease with recurrent episodes)
- asthma drugs (controller and reliever drugs)
- asthma drug administration (delivery device techniques)
- asthma follow-up (importance of primary care visits).

The four messages we developed are consistent with the National Asthma Education and Prevention Program guidelines of 1997 and 2007.

Delivering key messages during teachable moments improves patient outcomes.

## Integrating messages into ED visits

Typically, traditional discharge education is time-consuming for the provider and family, so we

identified teachable moments—opportunities for delivering educational messages throughout the ED visit. We created a concept map of a typical ED visit for asthma and identified four points of care during which key messages could be delivered. (See *Delivering key messages during ED care*.)

1. **Triage** offers time for the nurse to explain his or her assessment to the family. The nurse points out asthma signs and symptoms and relates them to what's happening in the lungs.
2. **Assessment** provides time to discuss some or all key messages.
3. **Intervention** is a time to discuss asthma drugs and their administration.
4. **Discharge** presents an opportunity to discuss the importance of follow-up care.

## Educating the ED staff

The ED staff must understand the teachable-moments

## Delivering key messages during ED care

The model below shows the four key messages and the points during an emergency department visit when staff can deliver these messages effectively.

		POINTS OF CARE			
		Triage	Assessment	Intervention	Discharge
KEY ASTHMA MESSAGES	Pathophysiology	★	★	★	
	Medications	★	★	★	★
	Medication Delivery		★	★	
	Follow-up		★		★

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concept and be able to recognize opportu- nity times to deliver the key messages. During administration of an asthma reliever drug, for example, a staff member has the chance to discuss reliever and controller drugs and their appropriate use.

To build competence, we use a real-time simulation exercise that addresses age-appropriate delivery techniques and the ability to consistently integrate key messages throughout the patient stay. We also use annual staff competency assessments. In addition, asthma education training is part of our new ED employee orientation and the ED nurse residency program.

Staff education is ongoing. Having a point person in each ED to serve as the asthma education champion is vital to the program's success. To accommodate different learning styles, we use various teaching methods:

- A 2-day offsite education camp focuses on annual education needs. A staffed booth provides educational materials and tools for practice, fun key message reminders, and staff surveys to identify additional learning needs.
- Periodically, we offer key message incentives. Examples include pens, coffee cups, pencils, and water bottles promoting the key messages.
- Staff members can access electronic quarterly newsletters that address elements of the key messages.
- Clinical educators provide change-of-shift asthma information updates.
- An asthma education resource binder identifies available patient-education resources.
- We provide asthma education at our hospital-wide annual competency fair.
- An online asthma education module is available to the staff.

### Using tools to deliver key messages

To increase staff knowledge and confidence, we provide tools to help deliver asthma education. For instance, we placed a poster illustrating the four key asthma messages in the ED lobby, the triage area, and each exam room. The poster serves as both a teaching reminder for the ED staff and an effective educational tool when working with patients and families (See *Teaching key messages by poster.*)

We've also created a portable asthma education kit, which contains various holding chambers with dispos-

## Teaching key messages by poster

This poster illustrating the four key asthma messages hangs in the emergency department lobby, the triage area, and each exam room.

**ASTHMA doesn't have to take your BREATH away**

**What is Asthma?**  
 Asthma is a chronic (long-term) lung disease  
 Episodes (flare-ups) may come and go  
 Symptoms of asthma are:  
 • Coughing especially at night  
 • Wheezing  
 • Shortness of breath  
 • Chest tightness  
 3 things happen in the lungs during an episode:  
 1. Muscle tightening  
 2. Swelling  
 3. Mucus

**Medicine**  
 If you have persistent asthma, you need a medicine every day to control your asthma.  
**Controller**  
 • Prevents asthma flare-ups  
 • Gets rid of swelling and mucus  
 • Must be taken every day, even when you are well  
**Reliever**  
 • Relieves symptoms of asthma  
 • Relaxes airway muscles  
 • Take when asthma symptoms appear or when your doctor tells you

**Learn How to Take your Medicine**  
**Metered Dose Inhaler**  
 • Always use a spacer with a MDI to get medicine into the lungs  
 • Breathe in slow and deep  
 • Wait 1 minute and repeat  
**Dry Powder Inhaler**  
 • Breathe in steadily and deeply  
 • Hold 10 seconds  
 • Rinse and spit after using  
**Nebulizer**  
 • Use a mask for children under 5 years  
 • Make sure you have a working machine and cup

**Follow-up**  
 • See your doctor within 48 hours after emergency department visit  
 • Have an Asthma Action Plan to use at home and at school  
 • Learn what makes your asthma worse and how to **stay away** from those things

FOR MORE INFORMATION ABOUT ASTHMA:  
 Children's HOSPITALS AND CLINIC of Minnesota | AMERICAN LUNG ASSOCIATION | Asthma Information Center www.ALAMN.org/infoCenter | AMERICAN LUNG ASSOCIATION LUNG Helpline 800.LUNG.USA

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able mouthpieces, placebo metered-dose and dry-powder inhalers, and peak-flow meters. Staff members use these delivery devices to instruct and observe appropriate drug-delivery techniques.

Additionally, we've produced patient-family education handouts in three languages. Addressing asthma, asthma triggers, inhalers, drugs, and nebulizers, these handouts are available in the ED and online at [www.childrensmn.org](http://www.childrensmn.org).

To increase the visibility of asthma education, we've added prompts to the electronic medical record. The prompts serve as reminders of the key asthma messages and promote complete documentation of asthma education.

## On the cutting edge

Our staff-development efforts have enhanced staff confidence in delivering asthma education in the ED.

What's more, family caregivers report hearing the key asthma messages. More than 90% indicate that information provided by the ED staff will help them take care of their child with asthma. Because of patient demand, the posters have been made available for families to take home.

Our program puts our facility on the cutting edge of asthma care. We've shown that the teachable-moments educational strategy can be implemented effectively and efficiently in the ED. Based on the project's success, our asthma coordinator has adapted the teachable-moments concept to inpatient use. We're also investigating how we can apply our educational efforts to other common diagnoses—and improve even more patient outcomes. ★

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