Care for the Hospitalized Asthma Patient

By Steven K. Hamick, BIS, RCP, RRT, AE-C

Asthma attacks are caused by many things, called triggers. The most common symptoms of an asthma attack are shortness of breath, coughing, wheezing, or chest tightness (sensation of breathing through a straw). These symptoms can appear suddenly or slowly over time, and need to be taken seriously. Asthma attacks can be life-threatening and can happen in patients with any level of asthma severity (e.g., intermittent, mild, moderate, or severe persistent). For severe symptoms, emergency care is often needed and may require a stay in the hospital. Repeat emergency room visits and hospitalizations are risk factors for asthma-related death. The National Asthma Education and Prevention Program, Expert Panel Report 3 (EPR-3) are guidelines which help physicians and other health professionals successfully help patients keep their asthma under control at home and manage asthma in the hospital. The EPR-3 includes guidance on inpatient assessment and monitoring, patient education, environmental control, and medications.

There are over 16,000 asthma-related hospitalizations in Michigan every year, and most of these start with a visit to the Emergency Department. Emergency care providers should have protocols for treating and monitoring asthma attacks to ensure patients receive a high standard of care. Michigan has the F.L.A.R.E. emergency asthma discharge instructions available, which serves both as a teaching tool and as a short-term asthma action plan until the patient sees their doctor. For children, it is important to monitor their symptoms: if they are showing symptoms 1-2 hours after their initial treatment, they will most likely require a hospital stay. Measuring lung function and oxygen levels can also help providers decide if the child needs to be admitted to the hospital. For adults, lung function is the strongest indicator; low oxygen levels and sustained symptoms past 1-2 hours can help predict the need to stay in the hospital.

People who have asthma should know what they can do to avoid a hospital visit. Research has shown that patient education (in the hospital or after going home) can reduce emergency department visits and hospitalizations. Environmental control is another way to reduce asthma attacks. Removing or avoiding allergens and irritants in the environment can help prevent asthma attacks. A written asthma action plan and social support can also reduce the need for hospital visits for asthma. Medications used to manage asthma attacks include short-acting beta agonists (SABA), supplemental oxygen, anticholinergics, and oral steroids.

Assessment and monitoring, patient education, environmental control, and medications are all important ways to prevent asthma attacks. Early treatment at home is also an effective strategy to manage symptoms, prevent emergency care, and reduce hospital visits. Having a written asthma action plan that says exactly what to do to treat and prevent symptoms (medications and environmental control strategies), can help people with asthma stay out of the emergency department and hospital.
Steve Hamick is an educator in the respiratory care department of William Beaumont Hospital, Royal Oak, Mich., and the president of the Michigan Society for Respiratory Care.

Michigan Asthma Statistics ~ Hospitalization

- Asthma hospitalization rates are higher among females than males.*
- The rate of hospitalizations for blacks is 4 times higher than that for whites.*
- Children 0 to 4 years have the highest asthma hospitalization rate compared to other age groups.*
- Young adults, aged 15 to 34 years, have the lowest asthma hospitalization rate compared to other age groups.*
- The rate of hospitalizations for people living in poor areas is 4 times higher than for those living in areas with the most money.**
- The top three counties with rates of asthma hospitalization significantly higher than the rate for the state as a whole are 1) Wayne, 2) Saginaw and 3) Ingham counties. The vast majority of asthma hospitalizations for Wayne county are residents of the City of Detroit.*

Sources:  * Michigan Inpatient Database, 2004-2006  
** Michigan Inpatient Database, 2000-2002

AIM Partnership Forum ~ May 26, 2010

About 60 participants attended the AIM Partnership Forum on May 26, 2010 in Lansing to learn about emerging issues in asthma management, hear updates on asthma initiatives, and network with partners.

The Forum featured Dr. Robert F. Lemanske, Jr. from the University of Wisconsin School of Medicine and Public Health to discuss the Expert Panel Report 3 on Asthma: Inception to Implementation. He provided a historical background on the development of national guidelines for asthma and presented strategies for implementing the EPR-3 panel recommendations. A very interesting discussion-- the link below also takes you to all of the articles referenced during the presentation.

A panel with representatives from four innovative organizations highlighted their successes and answered questions about implementing the EPR-3 Six Key Messages. Panel member organizations included: the Detroit Department of Health & Wellness Promotion, the Hamilton Community Health Network, the Saginaw Department of Public Health, and the University of Michigan Health Systems.

Quick Links

- AIM GetAsthmaHelp Website
- Michigan Asthma Statistics
- AIM Partnership Forum
- AIM Outdoor Air Quality Webpages
- AIM Event Calendar
Shelli Bischoff-Turner, President and Founder of Nonprofit Impact, Denver, led an interactive discussion about where asthma efforts need to go in Michigan, and how we can get there. Participants' responses will help AIM staff create the strategic framework that will guide surveillance and program goals.

Visit the AIM website to view presentations from Dr. Lemanske and panel speakers.

Want to be invited to the next Forum? Contact Tisa Vorce.

**Michigan Asthma Calendar**

**July**
15    Healthy Homes Fair, Kalamazoo County Health & Community Services Department, 1-4:30 p.m. For more info: 269.373.5116

**August**
11-12  Asthma Information Review (AIR) Course, Lansing Community College West Campus, Lansing. For more info: Michigan Society for Respiratory Care, 866-989-MSRC (6772)
19    Asthma 1-2-3 Facilitator Training, Michigan Public Health Institute, Okemos, 1-4 p.m. For more info: Patty Inman, 810.953.3951 or pinman@alam.org

**September**
18    Not One More Life (asthma screening program), Pilgrim Rest Church, Lansing, 9 a.m. - 1 p.m. For more info: Sharon Page, 517.975.6400, Sharon.Page@irmc.org
20-21  Asthma Information Review (AIR) Course, Bavarian Inn, Frankenmuth. For more info: Michigan Society for Respiratory Care, 866-989-MSRC (6772)