



ANOTHER LOOK AT ASTHMA EDUCATION

by Sandra McCleaster RRT

The National Asthma Education and Prevention Program (NAEPP) recently issued its second revision of Guidelines for Diagnosis and Management of Asthma. This landmark government document, originally published in 1991, now comprises the latest evidence-based information available on the management of asthma. Like its earlier versions, the guidelines are framed around diagnosis, environmental triggers, medications, and objective measurements. But this latest version unequivocally puts patient education at the locus of positive outcomes. Most notably, it places the disease management right in the hands of the patient.

The latest NAEPP guidelines place asthma disease management right into the hands of the patient

Aside from the actual prescribing of medications, all components of the new guidelines require asthmatics to take care of themselves. Self-management is in fact, key to success for most patients with chronic diseases. But patients can't be expected to assume this responsibility without some knowledge and preparation. For that to happen, there

needs to be a willing and collaborative relationship between the patient and the health care provider.

The ultimate goal of patient self-management is to minimize the effect of symptoms on everyday life. In order to accomplish this, the patient must be motivated to stay well. Our job is to make sure patients are taught to recognize symptom patterns that indicate trouble ahead. This requires that the patients learn to assess, recognize and take action in response to changes in their symptoms. Behavioral modification is critical to producing this outcome.

Education has always been at the heart of our relationship with asthma patients. But now we're looking at a focus change. In addition to our usual role as treatment providers, caregivers need to become the facilitators for patient self-care. In line with the latest thinking in education, the aim must be on learning rather than teaching. There is no one perfect model for learning self-management skills but no matter what approach chosen, it must fully engage the patient in managing the disease. People don't learn in a vacuum. Learning comes about as a result of discourse and happens where ideas can be exchanged. A patient's learning has more to do with conversation with his or her health care provider than it does with learning facts or isolated pieces of information. With asthma education, ongoing interaction is an imperative.

The introduction of self-management skills should begin at the time of diagnosis and be integrated into every step of a patient's care path. Ideally, reinforcement should then occur at all encounters with asthma patients, whether they be in the emergency room, hospital, physician's office, home, or community setting.

The NAEPP guidelines promote the use of written action plans. The plans are reported to be the single most important tool of asthma education. The recommendations are for patients to be given a written daily self management plan as well as a plan for when symptoms worsen. Families should be encouraged to participate in the development of these plans because persons close to the patient are often instrumental in implementing trigger control and avoidance. Sample plans can be downloaded from the NAEPP website, but can then be individualized, thus allowing for some flexibility in determining changes, based on objective measurements such as peak flow, or on the patient's signs and/or symptoms.

We need to be ever mindful of cultural and/or ethnic characteristics as they may relate to each individual patient. It's often hard to know whether patients really comprehend what they are being told. And you can't tell by looking. To help ensure that asthmatics understand, it's suggested that health care providers use a "teach back" method, wherein they ask patients to "say back" what they believe they have been told.

Some studies have shown that self-education programs that relied heavily on written information in the form of brochures or pamphlets, etc. did not significantly improve patient outcomes, a fact that can be easily attributed to low health literacy. Low health literacy is associated with decreased asthma knowledge and self-management skills. The following should be of interest, although not surprising, to respiratory care practitioners in particular: An article in *Chest*, describes a study of close to 500 asthmatics, 2/3 of whom reported being high school graduates, but only 60% of that group could read above the 6th grade level. Only 31% of the group understood that they needed to see their physician even if they weren't having attacks. Only 45% knew that they still needed to avoid triggers even when they were taking their meds; 29% reported that they would wait to see if their symptoms went away on their own before they would use their rescue meds. That article concluded with the following words: "Reading ability is the

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A way to reduce the variability of VisoV measurements is to define a specific method of calculation. For example, when the volume down from TLC is measured, rather than using the commonly used method of measuring up from residual volume, most often very different results are obtained. The basic problem stems from the difficulty in attempting to mark an exact point where two somewhat noisy lines intersect.

If all measurements are made in one laboratory where only one technique is used, then the results are very reproducible. If the patients tested have multiple diagnoses then even the best intra-laboratory measurements will be off. In other words, if patients with beginning small air disease caused by emphysema are compared to patients with obstruction caused by chronic bronchitis, significant variability will result. Another factor that causes increased variability is the number of breaths of heliox inhaled before the test and the depth of breaths.

Finally there is a question as to what are the actual mechanisms that cause the changes in iso-flow segments of the flow-volume loop and their changes over time in an individual patient. No one really knows if the above described theories are valid during the latter sections of a flow-volume loop in normal and in obstructed patients because there is no corroborative evidence.

In conclusion, helium dilution studies can be accurate indicators of early airway obstruction in a well-run laboratory, but because of the complexity of the tests and the many factors which must be uniformly considered, the test is of questionable general clinical significance and currently is not normally used in clinical situations although it can be and is still used as a good research tool.

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strongest predictor of asthma knowledge." For this reason, written materials and action plans should be written at a 5th -6th grade level. Taking the health literacy factor one step further, other studies suggest that low parental literacy is associated with worse asthma care measures in children. To this end, the new guidelines emphasize pediatric concerns and place a high premium on asthma education in schools because of its potential to reach a large number of children.

The National Asthma Educator Certification Board established an exam leading to the Asthma Educator-Certified credential. Today, respiratory therapists make up the majority of practitioners who hold this A-EC credential. Respiratory therapists are the logical providers to deliver aerosol device education and to teach MDI use. There are, however, many health care providers who have the knowledge and skill set to become effective asthma educators, including physicians, nurses and pharmacists. The NAEPP guidelines emphasize all caregivers should collectively and collaboratively teach and reinforce asthma self-management at every opportunity and across all care settings. The American Association for Respiratory Care has published a very well-received Guideline to Aerosol Delivery Devices and also sponsors continuing education opportunities for those who feel they may be in need of brush-up or review.

The real key to success is the partnership with the patient. It is a time-consuming endeavor and regrettably, third party payers seem not to recognize the inherent value of patient education. Nonetheless, we all have to believe that asthma self management education improves outcomes and will ultimately reduce overall costs. We owe it to our country's almost twenty million asthmatics and to our professional roles as health care providers.

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