

Clinical Initiatives

may 2010

May is Allergy & Asthma Awareness Month!



The May edition of the Clinical Initiatives cover important teaching topics such as how to make an asthma action plan and how to use a peak flow meter as well as provide valuable websites and resources to help members manage environmental and food allergies.

Additionally, please note that our member care guides have a lot of information on asthma triggers and also contain an asthma action plan that members can complete with their doctors.

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The metrics below are provided as clinical outcomes in our reports to clients. It is important to address these metrics as you work with our members.

Asthma

- medication compliance
- adherence to asthma action plan
- perform peak flow monitoring

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NOTE: All information referenced within this newsletter has been obtained from the following sources/websites:

- National Jewish Website
- Harvard Medical School
- Healthwise
- The American Lung Association

Controlling Asthma Symptoms in the Spring



For asthmatics, springtime can be very challenging. As the flowers start to bloom, people with asthma may experience more triggers and therefore, more asthma attacks.

There are various asthma triggers, and each person may experience a different impetus for an asthma attack. Triggers can include anything that irritates the airway - from perfume to strong smelling cleaning solutions. The key is to learn what one's triggers are and then avoid exposure to those things that activate asthma symptoms.

Asthma Triggers

Asthma triggers are categorized into one of two main types: allergens and non-allergens. Allergens are in the air, and they cannot always be controlled. The most common allergen triggers in the air are: house dust mites, cockroaches, animal dander, indoor mold, and pollen. Non-allergens that may activate asthma symptoms take many forms and include cigarette smoke, air pollution, and upper respiratory infections such as colds, influenza (flu), and sinusitis.

Other Triggers

It is not uncommon for people with asthma to also exhibit symptoms when triggered by other environmental items. For example, many people with asthma experience symptoms when

they exercise. These symptoms are called exercise-induced broncho spasms, or EIB. In addition to exercise, things like dry, cold air and medicines such as beta-blockers, aspirin, and other nonsteroidal anti-inflammatory drugs (NSAIDs), can also serve as asthma triggers. In adults, hormones, including those involved in pregnancy and menstrual periods, may also cause someone to experience asthmatic symptoms. Additionally, some experts also suggest that Gastrointestinal Reflux Disease, or GERD, might exacerbate asthma symptoms as well.

Asthma Action Plans

People may experience one or both types of triggers - it all depends on the individual. If someone is uncertain of triggers, the best thing to do is to start keeping an asthma action plan. An asthma action plan is a diary that can be used to log asthmatic responses each day. This usually includes a written record of the symptom free days and the days on which symptoms are present. It should include certain types of flowers and trees that may be blooming, air quality, the concentration of smoke in the air, the amount of stress present and whether or not the wind was blowing dust and dirt. Members can watch for which flowers are blooming on the news and then check the pollen count on a website (i.e. www.pollen.com, www.weather.com, etc.) by entering their zip

code. This will assist members in identifying any correlations between the pollen count and their symptoms for that day.

The asthma action plan can also be used to measure the efficacy of asthma medications. It assists the member in identifying the need for more or less medication, as well as when to seek emergency help, and the effectiveness of environmental control measures.

Peak Flow Meters

Peak flow meter (PFM) readings should also be recorded in the diary. A peak flow meter is a tool used to help evaluate asthma symptoms. Each peak flow meter reads the peak expiratory flow or the largest amount of air that can be blown fast and hard through the mouthpiece. To use the PFM correctly, the patient should be standing and instructed to seal her lips around the outside of the mouthpiece, remove false teeth if loose, and then to blow as hard and fast as she can. The chamber will rise according to the amount of air exhaled. Peak flow meter numbers are effort dependent. It is important to get reliable, consistent results.

There are three zones that can be set on the PFM, and this is determined by a patient's personal best. To get a personal best, have the member blow into their meter for two to three weeks when they

Controlling Asthma Symptoms in the Spring (continued)



are not sick or having symptoms. The PFM should be used three times in the morning and three times in the evening. The patient should keep the reading from the best blow of the three attempts. Have patients record their readings for two weeks in their diary. The highest reading during those two weeks is the personal best.

Members should use their personal best peak flow meter reading to create their reference zones. The red zone is considered consistent with a reading of 0-50%. 50-80% is a considered a yellow zone, and 80-100% is a reading in the green zone. So for example, a person who has a personal best reading of 400 would blow at 320 or greater for green. A reading of 200 to 316 would be the the yellow zone and the red zone would be less than 200.

A patient may use their asthma action plan to gauge how well they are doing in a day, and guide the next steps according to their PFM readings. The doctor may set how they want the patient to perform in each zone. The American Lung association has also established guidelines that can be followed.

Rescue Medications

It is very important for the patient to check how they are feeling when using the PFM. If a patient is in the red zone and is short of breath, the member

should go to the emergency department quickly and utilize rescue medications en route to the emergency department. If a patient blows in the yellow zone and is not feeling too poorly, rescue medications can be used, and the patient should call their doctor for further instructions. A patient with a PFM reading in the green zone should be stable and no action should be needed. If the patient is feeling ill they can utilize the rescue medications as needed. The rescue medications should not be taken too close together as a result of its Beta 2 effect, which can cause the heart rate to increase. Patients should discuss with their doctor how often the rescue medication can be used without being monitored.

It is important to utilize the correct rescue medications. A long acting inhaler will not help a patient with an asthma attack. The short acting medications, or rescue medications, will help alleviate immediate symptoms. If the patient is not feeling better after using the rescue medications, they should call their physician. Instruct the patient that knowing their own body is very important. Knowing how long it typically takes to feel better after using medications is also very helpful for patients. If a patient does not recover in the usual amount of time, then they should follow their pre-determined action plan. If ever in doubt, it is always best to call the physician.

Summary

Overall, it is most important for patients to learn how to identify and manage their own triggers. Using an asthma action plan and a peak flow meter can allow patients to effectively manage their own asthma. Knowledge of what actions to take when exposed to triggers, when to go to the emergency room, and/or when to call the doctor can keep a patient from having a full blown asthma attack. It is important for patients to know their bodies, their typical responses to medications, and their typical recovery time after using rescue medication. Responding quickly to a trigger can keep a patient from an unnecessary hospital visit. The goal is to have patients stay healthy, breathe well and prevent asthma attacks.

NOTE: A Peak Flow Meter is not a diagnostic tool; it is a way to monitor the status of asthma. (The Peak Flow Meter is contraindicated for patients with COPD).

Depending on the type and functionality, peak flow meters can vary in price. There are mechanical meters and electronic meters, which have the ability to download to a computer, and they range in price from \$15.00 - \$100.00 or more.

Nutritional Insight on Food Allergies and Asthma



When we think of spring we usually think of green grass, short days and warm sunshine. But we also associate spring with flying pollen, asthma flare ups and constant allergic reactions. While most people do not think these things can be prevented, there are ways that they can be managed. This article discusses food allergies and asthma; even though food allergies and asthma are not a seasonal allergy it is still very important to educate members on how to manage their conditions.

Food Allergies

A food allergy occurs when the immune system mistakenly attacks a food protein. Ingestion of the offending food may trigger the sudden release of chemicals, including histamine, resulting in symptoms of an allergic reaction. The symptoms may be mild (rashes, hives, itching, swelling, etc.) or severe (trouble breathing, wheezing, loss of consciousness, etc.). A food allergy can be potentially fatal and scientists estimate that approximately 12 million Americans suffer from food allergies.

There is no cure for food allergies and research studies are inconclusive about whether food allergies can be prevented. A strict avoidance of the allergy-causing food is the only way to avoid a severe reaction. Reading ingredient labels for all foods is the key to steer clear of a reaction. If the product doesn't have a food label, those with a food allergy should not eat that food. If in doubt about the safety of a certain food, call the manufacturer for more information and check our website listing information later in this article.

Common Food Allergens

There are eight foods that account for 90% of all food-allergic reactions. They are milk, eggs, peanuts, tree nuts, fish, shellfish, wheat, and soy.

Asthma

There are a few foods that trigger asthma problems. Sulfites and sulfiting agents in foods (found in dried fruits, prepared potatoes, wine, bottled lemon or lime juice, and shrimp), and diagnosed food allergens (such as milk, eggs, peanuts, tree nuts, soy, wheat, fish, and shellfish) have been found to trigger asthma symptoms.

The incidence of asthma has risen in the United States during the past three decades, and many researchers believe that the changes in our diets have something to do with it. Several research studies have suggested that as Americans continue to eat fewer fruits and vegetables and more processed foods, we are possibly running the risk of developing asthma.

While the connection between diet and asthma remains inconclusive for now, there is evidence that people who eat diets higher in vitamins C and E, beta-carotene, flavonoids, magnesium, selenium, and omega-3 fatty acids have lower rates of asthma. Many of these items contain antioxidants, which protect cells from damage.

The Role of Antioxidants

So what kinds of foods have antioxidants which can help asthma? Eating plenty and variety of fruits and vegetables is a great start. Also, foods that are high in omega-3 fatty acids (i.e. fish such as salmon, tuna, and sardines as well as some plant sources like flaxseed), are believed to have a number of health benefits. Although evidence of the specific benefits as it relates to asthma is not clear, it's still a good idea to include them in your diet. Avoid trans fats and omega-6 fatty acids foods as there is some evidence that eating them in foods like margarines and processed foods, may worsen asthma.

Asthma & Food Allergy Support Resources

Below is a list of website resources that you can check out to assist members in managing food allergies and asthma.

All of these resources will provide some of the nutritional education needed for members with food allergies and asthma. For further and complete information please contact your fellow colleagues, the Anthem Care Management Registered Dietitians at extension 14102.

Asthma & Food Allergy Support Websites

<p>The Food Allergy and Anaphylaxis Network (FAAN)</p>	<p>www.foodallergy.org</p>	<p>Organization dedicated to improving public awareness for food allergies through education and research. FAAN's membership now stands at approximately 25,000 worldwide and includes families, dietitians, nurses, physicians, school staff as well as representatives from government agencies and the food and pharmaceutical industries. FAAN serves as the communication link between the patient and others. FAAN has nutrition information on the eight common food allergens, how to manage food allergies tips such as shopping and selecting "safe foods", eating at home, dining and traveling with food allergies and how to educate others.</p>
<p>The American Academy of Allergy, Asthma & Immunology (AAAAI) (approved for member use)</p>	<p>www.aaaai.org</p>	<p>The AAAAI represents a dynamic and diverse group of medical professionals focused on advancing the knowledge and practice of allergic disease. Membership is open to all medical and research professionals, including pharmaceutical staffers, who have an interest in the area. AAAAI has nutritional material on Food Allergy-Free Recipes, an Asthma and Anaphylaxis Action Plan.</p>
<p>Food and Drug Administration (FDA) (approved for member use)</p>	<p>http://www.fda.gov/Food/FoodSafety/FoodAllergens/default.htm</p>	<p>The FDA is a government agency which focuses on food allergens labeling and consumer alert on food allergens.</p>
<p>Asthma and Allergy Foundation of America (AAFA)</p>	<p>www.aafa.org</p>	<p>Not-for-profit organization for people with asthma and allergies, which provides information, community based services and support through a national network of chapters and support groups. AAFA has a free asthma management and education course online for healthcare professionals, advocacy groups as well as a free asthma PACT educational guide.</p>
<p>International Food Information Council Foundation - Food Allergy Information (clinician use only)</p>	<p>http://www.foodinsight.org/Content/76/Understanding-Food-Allergy.pdf http://www.foodinsight.org/Resources/Print.aspx?topic=Everything_You_Need_to_Know_About_Asthma_Food</p>	<p>A nonprofit organization that serves as a nutrition and food safety resource for consumers, health professionals, journalists, educators, government officials, and students. The International Food Information Council Foundation provides important and timely resources on a variety of topics such as weight management, diet (food) and health, food safety, food production, international food issues, and communications.</p>