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ALLERGY INFORMATION

TRIGGERS

Asthma is a disease that can have variable outcomes and variable measures of severity. Typically, patients underestimate the dimension and severity of their symptoms, and can spend months coughing, wheezing and experiencing shortness of breath, without realizing how severe the underlying disease is. Half of all asthmatics are unable to accurately estimate the degree of the asthma, and less than 30% comply with their prescribed medical regimen.

One way to determine the subjective feelings of the patients is the ACT (Asthma Control Test), a questionnaire validated by medical studies. The ACT presents five questions and assigns one of five point scores to them. The nature of the questions – e.g., how many times a patient is waking up at night – help measure the severity of the case in a way that objective methods sometimes miss. A patient with a score of nineteen or higher in an ACT is considered well-controlled.

Objective measures such as pulmonary function tests can measure the amount of obstruction and reversibility of airway disease. The peak flow meter – a hand-held device used to measure how air flows from a patient's lungs - was invented to fulfill this need. Based on three maximum exhalations, the strongest measure is taken and compared to a normal value for those of the patient's height and weight. The variability between the nighttime and daytime measure is also taken into account. An average unstable asthmatic can have his or her peak flow vary by up to fifteen percent between nighttime and daytime, as opposed to less than five percent for a normal stable non-asthmatic. This is due to changes in hormonal patterns and exposure to allergens at night among many other factors.

Recently, nitrous oxide has been used to measure the level of inflammation in asthmatics. With the use of special sensors, the patient's level of inflammation can be determined with a thirty-second breathing pattern. However there is controversy as to the absolute level of nitrous oxide that separates asthmatics from non-asthmatics.

There is a difference of opinion in how much weight to give to each measure of severity of the asthma. Most drug studies that measure the efficacy of asthmatic drugs use FEV 1 or how much air is blown out in one second as the most reproducible measure of asthma severity and reproducibility. Finally measures need to be used to convince the patient of the severity of their asthma so that they will comply with their prescribed medical regimen.