The Asthma & Allergy Center

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Teenage Asthma

The prevalence of asthma in children and adolescence continues to spiral upward with asthma still the most common chronic disease of childhood. An increasing morbidity reflects that many adolescents are not receiving adequate medication related to nonadherence.

This nonadherence is not confined to those with poor insight into their disease. Nonadherence is endemic in adolescence related to denial of illness, reluctance to seek medical care and to take medication because of the highly visible symptoms and inhaled medications. This situation had improved with availability of oral medications such as leukotriene modifiers. Psychosocial and developmental problems abound such as feelings of omnipotence and peer pressure, which mitigate against taking medicine, as well as isolation and low self-esteem and depression due to the visibility of asthma symptoms and medications. Adherence with medications is particularly low if medication is prescribed more than twice a day, which coupled with poor inhaler technique leads to ineffective control.

This failure to adhere to medications leads to increase asthma morbidity interfering with the social and school functions and precipitating increased use of medical care for emergency room visits, hospitalization and even death. A therapeutic alliance with the adolescent is necessary with an agreed upon and written action plan with no more than twice-a-day medication and peak flow monitoring to tailor medication and minimize side affects while optimizing asthma control. The introduction of oral medications like leukotriene modifiers and dry powder inhalers should simplify treatment and improve adherence and outcome.

A Special Age Group

The teens are a special group falling in between the catchment area of the internist and the pediatrician often in the “no man's land” of health care. They have special needs related to their growth and development and suffer from poor adherence with health care because of failure to recognize evolving asthma and reluctance to seek or accept medical care.

Asthma as a chronic disease afflicts an estimated 5%-10% of American children and adolescents aged 5-17, affecting a minimum of 4.8 million Americans younger than 18. The prevalence rate for current asthma in adolescents in a recent study was 12.6% with females having a significantly greater prevalence rate than males (16.4% vs. 9%). Females also reported more severe symptoms and a greater number of hospitalizations and emergency room encounters.

The incidence increased 52% in people 5 to 34 years between 1982 and 1991. Longitudinal studies indicate that asthma improves in adolescence presumably related to physiologic changes including improving immunity and enlarging airways. However, significant problems remain in 50%. Moreover, 45% of those who were “wheeze-free” at age 14 may have a recurrence of asthma at age 21.

Studies in high school, college and Olympic performers have established a prevalence of unrecognized exercise induced asthma of 3% to 20%. There was a 33% increase in the prevalence of disease among individuals aged <17 years in the United States in the 1980s with similar, if not higher incidence, in other countries. The estimated cost in association with this disease was $2 billion.

Death Rate Growing

The statistics are sobering. The death rate from asthma in the general population more than doubled from 1980 to 1993, while the death rate among teenagers aged 12 to 19 years increased more than four-fold. The predilection for death from asthma in teenagers is largely attributable to a combination of denial, lack of recognition of asthma symptoms, forgetfulness, belief that medication is ineffective, inconvenience, cumbersome nature of inhaler technique, fear or side effects and peer disapproval, inertia and reluctance to pursue medical care.

The intermittent course of asthma with symptoms resolving in 75% of adolescents who wheezed before age 7 years and the enlargement of airways with age may provide the adolescent with a false sense of security. These physiologic factors, taken together with the developmental peculiarities of omnipotence, the need for autonomy and peer pressure, conspire to motivate the teen to deny symptoms, the need for medical evaluation and adherence to therapy. When these factors are combined with a managed care system that operates on third-party payment and referral, the adolescent becomes the casualty of poor and erratic care. The symptoms of asthma are unrecognized by at least 33% of teenagers. A greater awareness of asthma and peer oriented asthma education adapted to adolescent development and psyche is essential in medical practices and schools.

*Adapted from the American Academy of Allergy, Asthma and Immunology