

Advances in Pediatric Asthma 2009

[Szeffler SJ. *J Allergy Clin Immunol.* 2010 Jan;125\(1\):69-78.](#)

This article reviews publications in this journal in 2009 relating to new developments in asthma control and management in children. Recent asthma guidelines emphasize assessment of asthma severity and control. The author reviews studies that highlight disparities in asthma care in different populations, factors affecting adherence to treatment especially in adolescents, school-based asthma programs, new data on treatment of exacerbations, studies of new genetic and environmental factors that contribute to the development of asthma, biomarkers and new insights regarding fatal asthma. Future management of asthma will require tailoring of care to the specific needs of individual patients.

Alternative medicine as a symptom of non-compliance

[Roy A et al. *Ann Allergy Asthma Immunol.* 2010 Feb;104\(2\):132-8.](#)

This study evaluated the relationship between asthma patient non-adherence to treatment and the use of alternative medicine. It was found among the 326 asthma patients surveyed, use of alternative therapies (25.4%) was correlated both with decreased adherence to treatment with inhaled corticosteroids (ICS) as well as poorer asthma control. Patients who used alternative medicine also tended to be more concerned about the side effects of ICS. This study suggests that physicians should ask their patients about use of alternative therapies when assessing adherence. In addition, patient concerns regarding ICS side effects should be addressed in order to improve adherence.

Disease burden and national asthma plans

[Kupczyk M et al. *Allergy.* 2010 Apr;65\(4\):415-9. Epub 2010 Jan 22.](#)

Asthma is a major health burden worldwide and diagnosis and treatment remain suboptimal despite availability of guidelines. In this review, national strategies to reduce the burden of asthma in three different countries, Finland, Poland and Brazil, are discussed. Although their health care systems differ, strategies based on local efforts, systematic planning and networking to bring about earlier diagnosis and institution of earlier anti-inflammatory therapy has led to a major improvement in asthma management and to reduced health costs.

Examining the irreversible blocking of airways

[Contoli M et al. *J Allergy Clin Immunol.* 2010 Apr;125\(4\):830-7. Epub 2010 Mar 15.](#)

Both asthma and COPD patients may exhibit an element of irreversible airflow obstruction. In this 5 year prospective study, 16 asthma and 21 COPD patients with fixed airflow obstruction were compared to 15 asthmatic controls without fixed obstruction. It was found that patients with fixed obstruction tended to have more exacerbations and suffered a greater decline in FEV1 than controls. When parameters such as comorbidities, sputum neutrophil counts and pulmonary diffusion capacity were evaluated it was found that decrease in FEV1 was correlated with these as well, perhaps indicating that fixed obstruction might simply be an expression of more severe pulmonary disease.

On the road to airway disease

[Juhn YJ. *J Allergy Clin Immunol.* 2010 Apr;125\(4\):838-843.e2. Epub 2010 Mar 17.](#)

Using a statistical analysis technique for calculating propensity scores, this study used census information regarding all children born in Rochester, Minn, between 1976 and 1979. Data was examined for correlations between the environment and future development of asthma. Results revealed a significantly increased propensity towards asthma development among children who lived in census tracts facing intersections with major highways or railroads. These findings support viewing environmental risk factors as significant in assessing the incidence of paediatric asthma.

Turkish trends in paediatric respiratory disease

[Selcuk ZT et al. *Pediatr Allergy Immunol.* 2010 Mar 19. \[Epub ahead of print\]](#)

How do the asthmatics of 2004 compare with those of 1994? In this series of cross-sectional studies conducted in 1994 and 2004 and including over 5000 Turkish paediatric respiratory patients in each, it was found that asthma and wheezing prevalence in Turkey has increased. In addition there was greater equality in asthma incidence between genders. The major risk factor identified was urban living. The authors suggest that changes in the population caused by migration and lifestyle alterations might explain the differences. The differences in gender prevalence are primarily ascribed to the diminishing of a diagnostic labelling bias.