

Bronchial Asthma – Patient Expectations and the Role in Asthma Care

P Scott

Bronchial asthma remains a common condition for which there has been significant transformation in understanding and treatment. The defining aspects of the condition include the presence of chronic inflammatory changes, reversible airflow limitation and bronchial hyper-responsiveness. The prevalence of this condition is relatively high in the Caribbean (1, 2) with values as high as 20% of the general population. There is a better understanding of the airflow limitation, the inflammatory cascade, bronchial hyper-responsiveness and even of the genetic domain of asthma (3). Aspects of pharmacogenetics are becoming important in the choice of therapy and how these drugs are used (4, 5, 6). Despite this, it remains a difficult task to transfer this body of knowledge into clinical improvement in management of patients; the so-called “bench to bedside” transformation. The task of getting improved clinical management is the same for most chronic diseases with the gradual spread of information into initially knowledge, then attitude and finally practice. This transformation must first take place from the skilled clinical researcher to the average clinician and finally to the general patient population.

The transformation of asthma care at the physician level has occurred over the years with the general knowledge of the need not to focus solely on symptom relief, but also the need to maintain good pulmonary function and the importance of treating the underlying inflammatory changes. The focus has shifted to a result-driven philosophy: total asthma control *versus* uncontrolled asthma (7). The importance of treating the underlying inflammation is in the forefront of asthma management. Despite this, the use of inhaled corticosteroids has remained significantly below the need but it is showing a gradual increasing trend in some areas (8). Despite this knowledge at the level of the doctor, there still is the lack of transfer of this knowledge to the attitude and clinical practice of the doctor and despite clinical guidelines recommendations, many asthmatics are under-treated (9). In fact, many practitioners both general and specialist still have some difficulty in adequately manipulating the commonly utilized drugs. To some extent, this is related to the limited number of studies looking at a

combination of asthma medications. There remains a large number of studies looking at the performance of individual drugs on asthma control, but limited studies on the combinations. This may be due to the fact that the research is driven to a large extent by individual pharmaceutical companies. Many of the drug combination recommendations are therefore based on consensus guidelines outlined by specialists in the field.

The individual with asthma must be an integral part of his own asthma management plan and therefore, for the successful management of the condition, must also have acquisition of knowledge and the subsequent transfer of this knowledge into attitude and clinical practice. The article on asthma in this issue (10) highlights the attitude of the asthmatic patient to his own illness as an important aspect. It also identified the relatively poor correlation between patients' perception of their asthma control and the actual level of control as determined by the instruments outlined in the study. Perhaps, the problem of poor correlation between perceived and actual control is the attitude and expectation of the asthmatic patient. One who expects or accepts symptoms most of the time would more readily perceive that his/her asthma is reasonably well-controlled; that is, the poor correlation is not entirely between their ability to perceive the degree of their airflow limitation and bronchial hyper-responsiveness as it relates to actual control, but is also between their expectation of control and the actual control. We therefore need to evaluate expectations of the patient and seek to align these to best clinical practice guidelines.

Progress in asthma over the past 20 years has transformed how the condition is treated. We must therefore continue to advance knowledge of asthma evaluating the genetic basis, the pathogenesis and pathophysiology. We will need to continue the quest for total asthma control which may even involve genetic manipulation and development of therapy targeting old and potentially new pathways. The translation of this knowledge into good useful patient management will however fail to have an impact on the target population without transformation of the expectations, attitudes and practices of patients. Clinical research must analyse the ‘expectations’ of asthmatic patients and seek to find ways to align these with those of the clinician and the best practice guidelines. This will likely be related to the individuals' knowledge, past experiences, socio-economic

Correspondence: Dr P Scott, Department of Medicine, The University of the West Indies, Kingston 7, Jamaica, West Indies. Tel: (876) 977-1271. E-mail: paul.scott@uwimona.edu.jm

factors and cultural behaviour. It would therefore vary in different regions of the world and even within different communities within the same region.

REFERENCES

1. Nichols DJ, Longworth FG. Prevalence of exercise induced asthma in school children in Kingston, St Andrew and St Catherine, Jamaica. *West Indian Med J* 1995; **44**: 16 – 9.
2. Monteil MA, Joseph G, Changkit C, Wheeler G. Comparison of prevalence and severity of asthma among adolescents in the Caribbean islands of Trinidad and Tobago; results of a nation-wide cross-sectional survey. *BMC Public Health* 2005; **5**: 96.
3. Barnes KC, Freidhoff LR, Nickel R, Chiu YF. Dense mapping of chromosome 12q13.12-q23.3 and linkage to asthma and atopy. *Allergy Clin Immunology* 1999; **104**: 485 – 91.
4. Lima JJ, Blake JV, Tantisira KG, Weiss ST. Pharmacogenetics of asthma. *Curr Opin Pulm Med*; **15**: 57 – 62.
5. Tantisira K, Weiss S. The pharmacogenetics of asthma treatment. *Curr Allergy Asthma Rep*; **9**: 10 – 17.
6. Yu IW, Bukaveckas BL. Pharmacogenetic tests in asthma therapy. *Clin Lab Med*; **28**: 645 – 65.
7. Thomas M, Kay S, Pike J, Williams A, Rosenzweig JR, Hillyer EV et al. The Asthma Control Test (ACT) as a predictor of GINA-guidelines defined asthma control: analysis of a multinational cross-sectional survey. *Prim Care Respir J*; **18**: 41– 9.
8. Niffen N, Fritscher C, Schacht FC, Levy G, Chiarella P, Soriano JB et al. AIRLA Survey Group. *Rev Panam Salud Publica* 2005; **17**: 191 – 7.
9. de Marco R, Cazzoletti L, Cerveri I, Corsico A, Bugiani M, Accordini S et al. Are the asthma guideline goals achieved in daily practice? A population-based study on treatment adequacy and the control of asthma. ISAYA Study Group 2005.
10. Pinto-Pereira LM, Boodoo S, Dindial KA, Hosein A, Seemungal TAR, Bekele I. Evaluation of asthma control using patient based measures and peak expiratory flow rate. *West Indian Med J* 2009; **58**: 214–8.