Asthma control

E M IRUSEN, MB ChB, FCP (SA), PhD
Co-chairman and Clinical Director, Respiratory Division, Department of Medicine, Faculty of Health Sciences, Stellenbosch University

Professor Irusen is President-elect of the South African Thoracic Society, chairman of TASS (Targeting Asthma in sub-Saharan Africa) and on the international executive of the COPD Coalition. His research interests are clinical and molecular aspects of respiratory medicine, particularly asthma and COPD.

The SA Thoracic Society and the Global Initiative for Asthma (GINA) have recently published updated guidelines to assist practitioners in the management of asthma. The guidelines were based on reports that asthma management is far from optimal. Despite a wealth of evidence on the inflammatory nature of asthma, inhaled corticosteroids (ICS) are still under-prescribed and even when issued, are under-utilised. Many doctors and patients have also aligned themselves to lower expectations: doctors who allow asthma to be uncontrolled and patients who accept that they will always be symptomatic. The consequences are unnecessary morbidity, exacerbations, time off work or school, and even mortality.

Because the underlying disease process cannot be seen clinically until obvious symptoms are present, it tends to be under-assessed and therapy is deficient. Until a tool becomes available to measure airway inflammation non-invasively and economically (probably an exhaled breath analysis device), asthma control will remain unsatisfactory. Health professionals need to acquaint themselves with the subtleties of asthma and use validated clinical parameters to ensure optimal control.

Experienced faculty members have joined me in this edition to discuss these issues and other common scenarios in clinical practice. I’ve endorsed the appropriate use of inhaled corticosteroids and beta-agonist agonists as the mainstay of therapy. When these are not used correctly, patients who, despite attempts at education on inhaler technique and optimal use of inhaler devices! This is my most frequent intervention in ‘difficult asthmatics’. I’ve often informed patients that they could be using the most innovative new molecules or devices, usually at considerable expense, but that they would experience no therapeutic effect (and it would be wasteful) if the inhalers were not used correctly. Patients who, despite attempts at education on inhalers, cannot utilise a MDI correctly, or when first-line therapy is inadequate, are candidates for leukotriene modifiers and/or theophylline. Charles Feldman puts these second-line therapies and other specific indications for their use in perspective. John O’Brien discusses diagnostic considerations in the difficult asthmatic and the therapeutic approach. Mohamed Gaffar looks at asthma in special situations including pregnancy. It must be emphasised that the pharmacological control of asthma in pregnancy is more important, and that safety concerns over inhaled steroids and beta-agonists are unnecessary (to date, there are insufficient data on the safety of anti-leukotrienes). Exercise-induced asthma is common in clinical practice, and Sharon Kling examines various hypotheses and treatment.

While the management of adolescent asthma is similar to that of adults, young children can be more challenging. Establishing a definitive diagnosis, understanding the evolution of wheezing and therapy need appropriate refinements. Paul Potter and Robin Green explore the current data in this respect.

The differentiation of asthma from chronic obstructive pulmonary disease (COPD) is discussed by Michelle Wong and should not constitute a diagnostic problem. It is in fact generally true that a smoker who develops obstructive lung symptoms has COPD. This distinction has become somewhat blurred in recent years due to an over-reliance on spirometry for the diagnosis. The demonstration of reversible airways obstruction (forced expiratory volume in the first second (FEV1) of ≥12% and ≥200 ml change from baseline) has been construed to be diagnostic of asthma. This is patently untrue. This degree of reversibility is seen in up to 50% of patients with COPD and similarly, when asthmatic inflammation is severe or untreated it can be difficult to prove reversibility; thus reversible airflow limitation is not a diagnostic label. One must emphasise that the clinician should have a good idea of the diagnosis from the standard pillars of clinical medicine – the history and physical examination – before lung function testing, and not after.

Again, I’ve been concerned that there is possibly an over-emphasis on spirometry in COPD in general practice. The technical and training requirements for competent and reliable performance make this somewhat difficult for the average practitioner. The simple Wright’s peak flow meter is still a very useful device and should not be underestimated.

As with all chronic disorders, successful patient outcomes depend on the partnership that a doctor can develop with the patient. This is particularly true of asthma because of the nuances of the illness and the multiple barriers that need to be overcome. Bob Mash discusses how the potential of the consultation can be maximised in this respect, utilising primary care principles.

A major departure in the new guidelines is the emphasis on asthma control. The previously cumbersome asthma severity classification is no longer promulgated. This follows clinical research that has shown that asthma can be well or completely controlled with a stepped therapeutic approach. The de-emphasis of severity recognises that severity is a reflection of both the severity of the disease and the response to treatment. Severity also varies over time. Subjects with mild disease can be extremely symptomatic and disabled if they’ve not been prescribed inhaled corticosteroids, giving the impression of disease of a much greater severity. Thus prescriptions appropriately tailored to address inflammation, relieve symptoms and normalise lung function should achieve control.

On behalf of the SA Thoracic Society, I spearhead an African initiative called TASS (Targeting Asthma in Sub-Saharan Africa). I’ve met with key opinion leaders from most of these regions. The reader will be astonished to learn that in almost all these countries, not a single inhaler of any class is available in their public health sectors. We are indeed fortunate in South Africa to have considerably better resources. The Department of Health has also published asthma guidelines for South African health facilities. With this commitment we ought to be doing much better. We need to participate actively in continuing medical education to be aware of the latest concepts which can make a meaningful impact on patient care.
Following assimilation of the information in this issue, clinicians should have a good idea of how to establish a definitive diagnosis, the parameters that constitute well-controlled asthma and how to manage asthma in special circumstances. Only then will we have a positive influence on the quality of lives of patients and the socio-economic burden of asthma.