

The role of asthma guidelines in achieving current control and reducing future risk

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Asthma is a chronic inflammatory disease that is associated with fluctuating control, based on factors such as allergen exposure and viral infections. This fluctuation in symptoms gives rise to the challenge of motivating patients to take medications when they feel well and also to respond to a worsening of their asthma control by adjusting the antiinflammatory component of treatment at such time. It remains a major public health burden and from a public health perspective is a major driver of health care costs.^[1] Ultimately, of course, in the absence of access to medications, appropriate education on how to use medications, especially at the time asthma worsens, the patient will commonly have poorly controlled asthma. In addition, we now recognize the heterogeneity of asthma especially in terms of severe asthma and that currently available therapies are not adequate to achieve control.

It is against this background that the Saudi Thoracic Society is to be congratulated in updating their previously published guidelines developed by the Saudi Initiative for Asthma (SINA) group.^[2] Guidelines provide a useful framework for developing a management strategy for asthma.^[3] By identifying evidence-based recommendations they not only help the clinician manage their patients but it also facilitates discussion with providers to ensure that the necessary drugs are available. Guidelines are expensive to produce and it is not imperative for every country or region to develop an evidence base, as there are a number of respected evidence-based guidelines available including most notably the Global Initiative in Asthma (GINA).^[4] The strategy adopted for the guidelines developed by the SINA group is an ideal example of how such a statement can be adapted to local needs. The authors have provided a concise review of the pathophysiology of asthma and the central message of the pivotal importance of inflammation in asthma as a framework for considering the need for regular antiinflammatory therapy. They also provide important regional epidemiological data to

allow the clinician put in context the public health dimension of the problem, which a clinical level may not always be appreciated.

Subsequently they emphasize the essential nature of inhaled corticosteroids as the primary core treatment of asthma. It is the foundation entry level treatment for all but the mildest asthma, which not only ensures excellent asthma control for most mild asthma patients, but also has been shown to have a significant protective effect in reducing the risk of asthma deaths. Prior to adding further therapy, in the presence of ongoing poor asthma control, it is important not to adjust therapy before addressing issues of adherence but also to ensure the patient is using the correct inhaler technique when taking their medication. It is the accepted practice that in such situations there is little benefit in increasing the dose of inhaled corticosteroids but rather the addition of a long acting beta agonist not only achieves better symptom control but also significantly reduces the risk of exacerbations.^[5,6]

In the presence of ongoing poor control the patient becomes categorized as having difficult asthma. Again the current document has recognized the implications of this challenging group of patients by including a new section to help manage this patient group. Before embarking on the use of expensive additional therapy such as omalizumab or the emerging new therapy: bronchial thermoplasty, it is important to pause and reassess the patient completely. There are many examples of patients being referred to a specialist center with the designation of being a patient with difficulty to control asthma, only for them to be found to have adherence issues or no asthma, most notably in the presence of vocal cord dysfunction. It is at this stage and it is also important to ensure that such issues as rhinosinusitis, obesity, gastroesophageal reflux, and ongoing cigarette smoking, which reduces the efficacy of inhaled corticosteroids have been addressed.

Difficult to control asthma is a heterogeneous

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disorder, which will likely require targeted therapy by using assessment of airway inflammation using sputum assessments for the presence of eosinophilia, to guide treatment. Currently, the therapeutic options in this regard are limited. There is emerging evidence that treatment with the anti IL 5 monoclonal antibody, mepolizumab, will have important effects on exacerbation risk.^[7] The heterogeneity of the disorder will ensure that we will need additional therapies to target the different sub groups.

The stimulus for better treatment of this group of patients lies not only in the abysmal quality of life that they have but also the huge economic burden they place on the health care system. We have recently shown in British Columbia that 4% of patients with severe asthma consume 50% of the indirect health care costs for asthma in that Province. Also not surprisingly across all patient groups it is the uncontrolled asthma patient, even with mild asthma, that also drive health care costs. Given that the costs of the emerging new treatments as well as the currently available omalizumab, it will be important to have robust economic evaluations of such expensive asthma treatments to ensure that payers can be convinced that they will have an impact on recuing not only patient related outcomes but also confirm the impression that they may also have the benefit of reducing the total asthma cost burden.

The challenge now remains for taking this comprehensive framework for asthma care and translating it into better outcomes in the region. Our patients deserve that we focus

on achieving this goal. Better patient outcomes will also help reduce total asthma costs.

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