

## Asthma: The Need for Good Control

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World Asthma Day is an annual event organised by the Global Initiative for Asthma (GINA) in collaboration with healthcare groups and asthma educators to improve asthma awareness and the care of asthma patients around the world. Each year GINA chooses a theme and prepares and distributes World Asthma Day materials and resources.

This year's World Asthma Day was 5 May 2009, with the theme "You Can Control Your Asthma". The theme is consistent with the emphasis on asthma control set out in the latest versions of the GINA guideline documents. It is designed to emphasise that asthma control is the goal of treatment, and can be achieved in the vast majority of asthma patients with proper management.<sup>1</sup> The importance and need for good control of asthma is also spelt out in most local and international guidelines on asthma management, including the local Ministry of Health (MOH) asthma clinical practice guidelines.<sup>2</sup>

An estimated 300 million people worldwide have asthma, according to the Global Burden of Asthma Report (available from [www.ginasthma.org](http://www.ginasthma.org)), a compilation of published data on the prevalence and impact of asthma around the world. The report, released by GINA on World Asthma Day 2004, shows that many asthma patients around the world have unmet needs, related to their illness, that lead to poor asthma control. It also documents that the prevalence of asthma is increasing throughout the world, particularly as communities become more urbanised. As the proportion of urban dwellers increases around the world, it is estimated that there may be an additional 100 million persons with asthma by 2025. The number of disability-adjusted life years (DALYs) lost due to asthma worldwide has been estimated to be 15 million per year, contributing to 1% of total DALYs lost, reflecting the high prevalence and severity of asthma.

The Singapore burden of disease study estimated that asthma accounted for almost 4400 DALYs lost in the year 2004, 1.2% of the total DALYs lost in Singapore.<sup>2</sup> Besides a high burden of disease, poorly-controlled asthma remains all too common in Singapore. A population-based survey revealed that patients in Singapore and the region experience

a heavy burden of disease exacerbations, plus days lost from work and school.<sup>3</sup> Moreover, asthma-related death is still a problem and on-going mortality among younger patients is especially disturbing.<sup>4</sup>

To deal effectively with the increasing burden of asthma, there is an urgent need for improved control of the disease, both at the individual (micro) level and at the population level (macro or population disease management). But just what is good asthma control, and how is it achieved at the individual level? Good asthma control means that a person with asthma has:

- No (or minimal) asthma symptoms
- No waking at night because of asthma (i.e. no nocturnal asthma symptoms)
- No (or minimal) need to use quick-relief medication
- The ability to do normal physical activity and exercise
- No asthma attacks
- Normal (or near-normal) lung function test results

There is now good evidence that appropriate treatment will control the clinical manifestations of asthma. Most people with asthma need 2 types of medications: controller medications (mainly anti-inflammatory agents such as inhaled glucocorticosteroids) that are taken every day over the long-term to keep symptoms and attacks from starting, and reliever medications (rapid-acting bronchodilators) that must be kept on hand to treat attacks or provide quick relief of symptoms.

For individuals, the regular use of controller medication and a reduced need for reliever medications will indicate good or better control of asthma. This result will translate into reduced hospitalisations, emergency room visits, unscheduled or urgent care visits and a better quality of life. Most patients with asthma will first seek help from their primary care doctors. With appropriate management, good asthma control can be achieved for most patients at the primary care level.

The proper long-term management of asthma will permit most patients to achieve good control of their disease. The

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Global Burden of Asthma Report details instances where improving asthma control has reduced the burden of disease. For example, the declining asthma mortality rates in some countries over the last 10 years have been attributed to the increased use of inhaled glucocorticosteroid therapy, and in other countries the latter has decreased overall asthma severity. Locally, the efforts of the Singapore National Asthma Programme (SNAP) are commendable in that the programme provides uniform, structured, and continuous care for patients in ambulatory-care facilities by using evidence-based care paths for clinical decision making, patient education and training in self-management plans, asthma care nurses and care manager support, and finally regular reviews in specialist clinics for high-risk asthma patients.<sup>5</sup> The 2008 MOH asthma clinical practice guidelines, updated in line with the latest GINA guidelines, took a fresh look at practical asthma management relevant to Singapore. The guide provides simple and practical recommendations to control asthma.<sup>2</sup> It is relevant to our local context and continues to address specific barriers to quality asthma care.

What else can we do to further improve the care for our asthma patients? First, we should adhere to our local set of asthma management guidelines, which now focuses on achieving good control of asthma. To assess asthma control, a simple and robust tool, the Asthma Control Test (ACT), is recommended.<sup>6</sup> Using a simple validated tool such as the ACT helps to objectively assess asthma control and to minimise asthma ‘disconnects’ – that is, patients overestimating their asthma control and doctors underestimating their patients’ symptoms. Second, every asthma patient should be armed with the skills of disease and self-management. A written asthma action plan should be taught so that patients can implement it for self-management of exacerbations between visits. Patients educated in self-management plans experience a one-third to two-third reduction in hospitalisation, emergency room visits, unscheduled clinic visits and missed workdays due

to asthma.<sup>7-9</sup> The best disease manager for asthma is the patient himself or herself.

Finally, we can improve our care delivery of asthma by ‘connecting the dots’, improving the integration of care across the spectrum from primary care to emergency room visits to hospitalisations to specialist clinics. Asthma remains ever dynamic, and even patients with mild asthma can have a severe flare of their condition and end up in the emergency room or hospital. At the population disease management (macro) level, we ought to strive to provide care that is coordinated, seamless, timely and appropriate.

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