

Indian guidelines for asthma: Adherence is the key

Asthma is a common, chronic inflammatory disease of the airways that affects people of all ages and imposes a substantial burden on patients, their families, and the community.^[1] It causes respiratory symptoms that are interspersed with severe attacks, which can require urgent health care and may be fatal. The burden of asthma is immense, with more than 300 million individuals currently suffering from asthma worldwide, about a tenth of those living in India.^[1,2] The prevalence of asthma has been estimated to range 3-38% in children and 2-12% in adults,^[3] being the commonest chronic disorder among children. A recent Indian Study on Epidemiology of Asthma, Respiratory Symptoms and Chronic Bronchitis (INSEARCH) done with 85,105 men and 84,470 women from 12 urban and 11 rural sites in India estimated the prevalence of asthma in India to be 2.05% among those aged >15 years, with an estimated national burden of 18 million asthmatics.^[4]

Asthma causes limitations in daily activities, loss of school and work days, lung function impairment, reduced quality of life, and an adverse socioeconomic burden. About 15 million disability-adjusted life years are lost annually due to asthma, which represents 1% of the total global disease burden.^[1] There are about 489,000 deaths attributable to asthma annually^[5] and the majority of deaths occur in low- and middle-income countries, particularly Oceania, South and Southeast Asia, the Middle East, and Africa.^[6] Patients from low- and middle-income countries have more severe symptoms than those in high-income countries, possibly due to incorrect diagnoses, poor access to health care, unaffordability of therapy, exposure to environmental irritants, and genetic susceptibility to more severe disease.^[7]

Achievement and maintenance of control through the assessment of clinical manifestations and future risk has become the aim of treatment over the years. In high-income areas, mortality due to asthma, which is predominantly an adult problem, has fallen substantially in recent decades with the spread of new guidelines for treatment that emphasize the use of inhaled steroids to control the disease.^[6]

While a number of guidelines exist regarding the management of asthma in general, substantial differences exist across countries regarding the insights, attitudes, and perceptions about asthma and its treatment that suggest unmet, country-specific cultural and educational needs. A large proportion of asthma patients overestimate their level of control. Indian asthmatics have a high frequency of reported exacerbations (67%), leading to substantial functional and emotional limitations.^[8] This depicts poor control of asthma and reflects the inadequate treatment of such patients. The uptakes of bronchodilators, inhaled corticosteroids, and influenza vaccinations have been found to be low in lower-income countries low-income countries, including India, compared to those with higher per-capita income, suggesting the role of economics in determining the uptake of adequate therapy.^[9] The use of inhaled steroids and bronchodilators is clearly a cost-effective strategy, because the amelioration of symptoms will not only improve individual symptoms but also shall be collectively be contributory to the economic productivity of this active workforce.

The current supplement on asthma guidelines, a joint initiative by the Indian Chest Society (ICS) and the National College of Chest Physicians (NCCP), pulls together a locally relevant set of guidelines for general and pulmonary physicians of this country. While the guidelines aim to provide an evidence-based framework for physicians for the diagnosis and management of asthma in general, adherence to the recommendations may not ensure a successful outcome in every case. The ultimate judgment must be made by the appropriate health-care professional responsible for clinical decisions regarding a particular clinical procedure or treatment plan arrived at following discussion of the options with the patient, covering the diagnostic and treatment choices available.

These guidelines were spearheaded by an astute pulmonologist of our times, Dr. (Prof.) Dheeraj Gupta, who, sadly, left for his heavenly abode on February 22. Dr. Gupta contributed immensely to the progress of the ICS. He was convener of the credentialing committee of ICS proving the prestigious fellowship. He was associate editor of "Lung India" from 2004 to 2010, and along with Prof. S. K. Jindal led to its refinement and continued surge in stature. Indexing in PubMed and the online version of journal started during his association with "Lung India." Additionally, after January 2010, whenever the need arose, he always provided help and support to "Lung India" as a doyen. He was the key figure in in bringing the ICS and the NCCP together and formulate national evidence based

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guidelines for a number of important locally relevant respiratory diseases such as evidence-based guidelines for the management of some very important respiratory diseases, such as pneumonia, chronic obstructive pulmonary disease (COPD), and bronchial asthma.^[10-12] Be it in the cyber world or during various conferences, odd hours of the day or the night, in the prime of his health or braving a damning glioblastoma, Dheeraj was prompt to discuss any issue with an unrelenting enthusiasm, leaving everyone astonished at his zeal and passion for science. A prolific researcher with more than 250 publications, and lead author of many landmark publications, he was ever a team man, never hesitating to attribute his achievements to all his colleagues. A perfect tribute to this noble soul would be to use the guidance in the current supplement to benefit countless children and adults through reduced suffering and hospitalizations.

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REFERENCES

1. Global Initiative for Asthma. Global Strategy for Asthma Management and Prevention. Available from: http://www.ginasthma.org/uploads/users/files/GINA_Report_2014.pdf. [Last accessed on 2015 Mar 15].
2. Kant S. Socio-economic dynamics of asthma. *Indian J Med Res* 2013;138:446-8.
3. Cavkaytar O, Sekerel BE. Baseline management of asthma control. *Allergol Immunopathol (Madr)* 2014;42:162-8.
4. Jindal SK, Aggarwal AN, Gupta D, Agarwal R, Kumar R, Kaur T, et al. Indian study on epidemiology of asthma, respiratory symptoms and chronic bronchitis in adults (INSEARCH). *Int J Tuberc Lung Dis* 2012;16:1270-7.
5. GBD 2013 Mortality and Causes of Death Collaborators. Global, regional, and national age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990-2013: A systematic analysis for the Global Burden of Disease Study 2013. *Lancet* 2015;385:117-71.
6. Burney P, Jarvis D, Perez-Padilla R. The global burden of chronic respiratory disease in adults. *Int J Tuberc Lung Dis* 2015;19:10-20.
7. Laloo UG, Walters RD, Adachi M, de Guia T, Emelyanov A, Fritscher CC, et al. Asthma programmes in diverse regions of the world: Challenges, successes and lessons learnt. *Int J Tuberc Lung Dis* 2011;15:1574-87.
8. Thompson PJ, Salvi S, Lin J, Cho YJ, Eng P, Abdul Manap R, et al. Insights, attitudes and perceptions about asthma and its treatment: Findings from a multinational survey of patients from 8 Asia-Pacific countries and Hong Kong. *Respirology* 2013;18:957-67.
9. Gnatiuc L, Buist AS, Kato B, Janson C, Ait-Khaled N, Nielsen R, et al.; BOLD Collaboration. Gaps in using bronchodilators, inhaled corticosteroids and influenza vaccine among 23 high- and low-income sites. *Int J Tuberc Lung Dis* 2015;19:21-30.
10. Gupta D, Agarwal R, Aggarwal AN, Singh N, Mishra N, Khilnani GC, et al.; Pneumonia Guidelines Working Group. Guidelines for diagnosis and management of community-and hospital-acquired pneumonia in adults: Joint ICS/NCCP(I) recommendations. *Lung India* 2012;29(Suppl 2):S27-62.
11. Gupta D, Agarwal R, Aggarwal AN, Maturu VN, Dhooria S, Prasad KT, et al.; S. K. Jindal for the COPD Guidelines Working Group. Guidelines for diagnosis and management of chronic obstructive pulmonary disease: Joint ICS/NCCP(I) recommendations. *Lung India* 2013;30:228-67.
12. Agarwal R, Dhooria S, Aggarwal AN, Maturu VN, Sehgal IS, Muthu V, et al. Guidelines for diagnosis and management of bronchial asthma: Joint ICS/NCCP(I) recommendations. *Lung India* 2015;32:3-42.

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