

## Understanding and preventing asthma-related deaths

Entendendo e previnindo as mortes relacionadas à asma

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In the current issue of the Brazilian Journal of Pulmonology, Rodrigo et al.<sup>(1)</sup> present a collaborative study of asthma deaths among patients in Spain and in eight Latin-American countries, Spain accounting for half of the total number of deaths. In a collaborative effort sponsored by the Latin-American Thoracic Association and the Spanish Society of Pulmonology and Thoracic Surgery, the authors analyzed 25 deaths occurring during 3,038 hospitalizations for asthma in the nine Spanish-speaking countries evaluated. Despite the retrospective nature of the study, and although the overall number of deaths was low, the multivariate analysis identified certain risk factors. The authors found that asthma mortality was strongly associated with being female, with having suffered out of hospital cardiopulmonary arrest and with presenting acidosis, the last two being consequences of a severe asthma attack. Although the percentage of deaths seems small (0.8%), most of them should be considered preventable, and such cases are only the tip of the iceberg that is asthma care. For example, despite the fact that spirometry or peak expiratory flow measurement is recommended for the assessment of acute asthma in most if not all clinical guidelines, lung function was analyzed and noted in only one fourth of the patients. This is a common problem worldwide. No difference between survivors and nonsurvivors was found in terms of the previous use of inhaled corticosteroids (ICS) or long-acting beta-agonists (LABA), although theophylline was used twice as frequently by those who died during hospitalization, a finding that probably indicates greater asthma severity, poor control and limited access to medication (ICS and LABA). Most of the patients who died (64%) were classified as having severe persistent asthma.

The project known as the *Estudio del Asma Grave en Latinoamérica y España* (EAGLE, Study of Severe Asthma in Latin America and Spain)<sup>(2)</sup> should inspire other collaborative research projects that are more ambitious and involve longitudinal study designs. In addition, the EAGLE project could spark a multinational effort to provide greater access

to diagnosis and appropriate treatment of asthma. A study of the Finnish national asthma program,<sup>(3)</sup> which focuses on primary care, together with easy access to ICS and other drugs, showed that the asthma burden has decreased over the last 10 years.<sup>(3)</sup> Although the program identified a greater number of asthma sufferers, there were considerable gains: the length of hospital stays and the mortality rate fell by half; disability payments dropped by 76%; the annual cost per asthma patient decreased by 36%; and the total national asthma-related expenditures decreased slightly. At Finnish health care facilities, the estimated availability of peak flow meters was 100%, and that of spirometry was 95%. However, it is possible to reduce the asthma burden, as well as its impact on individuals and society, using even the limited resources currently available in most developing countries. International collaboration such as that demonstrated by the EAGLE study, together with the results of the Finnish national asthma program study and similar efforts, provide a real opportunity to reduce the asthma burden and prevent most asthma-related deaths.

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### References

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