

Pediatric asthma – The impact of hospital admissions

RENATO TETELBOM STEIN

Asthma is a highly prevalent disease and has a significant impact on the public and private health care systems in Brazil. It is estimated that the prevalence of asthma-related symptoms is approximately 20%, whereas the frequency of active asthma is approximately 10%.⁽¹⁾ These figures are not so different from those found in developed countries, where asthma is seen as a significant public health problem.

According to the Departamento de Informação e Informática do Sistema Único de Saúde (DATASUS, Unified Health Care System Department of Information and Information Science), nearly 200,000 children under 14 years of age and diagnosed with asthma were hospitalized under the Brazilian Sistema Único de Saúde (SUS, Unified Health Care System) in 2004, even considering that there was probably significantly under-reporting of the disease in various regions of the country. If we consider that a reduction in the number of hospital admissions is one of the objectives to be achieved through the adequate control of the disease, we can conclude, even through the use of an isolated finding, that the asthma management programs in Brazil are far from being adequate, which has a significant impact on the health of children.

Even more significant is the fact that asthma is responsible for one in every 250 deaths worldwide. Many of these deaths are avoidable, since they are related to inappropriate medical care, lack of adequate information, and delays in obtaining treatment during more severe attacks. In Brazil, there were 3000 asthma-related deaths in 2004 among SUS patients alone.

A recent study⁽²⁾ evaluated the situation of asthma management in Latin America. The Asthma Insights and Reality in Latin America study, in which a large portion of the data was collected from the Brazilian population, showed that, in a group of 1376 adults and 808 children with asthma (the

latter with a mean age of 7.5 years), more than 50% had been hospitalized for asthma or had unscheduled medical visits for asthma within the year preceding the study. A small percentage of the population studied were using medications that were compatible with the severity of their condition, and only 6% were using inhaled corticosteroids. These data reveal a great disproportional difference between the need for the continuous use of drugs and their actual use. The lack of adequate public policies leads to the overcrowding of emergency rooms.

In this context, Lasmar et al., of the Universidade Federal de Minas Gerais (UFMG, Federal University of Minas Gerais), studied of a population of 202 children under 15 years of age. The results of that study appear in this issue of the Brazilian Journal of Pulmonology.⁽³⁾ The authors demonstrated that 65.3% of the asthma patients hospitalized in the city of Belo Horizonte were re-admitted with the same diagnosis within the next 18 months. Although these figures are similar to those found by other Brazilian researchers, they are significantly higher than those observed in developed countries. Another important finding of the study is that the onset of the asthma symptoms occurs at an early age (before the first year of life), and that this is one of the main risk factors for hospital re-admission. Programs such as the one being carried out by the UFMG group, which targets an at-risk population, bring about a significant decrease in asthma-related hospital admissions among the patients included in the system. These data indicate that children should constitute a central focus of public prevention programs, which should provide universal access to educational and treatment strategies that involve adequate follow-up evaluation.

One such program was developed by this same group of UFMG researchers and is a model for the treatment of asthma patients, achieving marked success in reducing the rates of hospital admission

among the children served, who are monitored by trained physicians in municipal health care facilities. Initiatives like this, in some Brazilian cities, are especially due to the effort and dedication of some health professionals and public administrators who are sensitized to the problem. However, it seems that there is no national strategy that recognizes the importance of the role played by asthma management in terms of its impact on the cost of public health care and that meets the needs of our populations to improve their quality of life.

Despite the great efforts made by the medical societies to establish guidelines for the management of the disease and to offer counseling on proper asthma management to public institutions, these actions are still far from achieving the goal of reducing the impact of hospital admissions and of the wide use of the health care system for unscheduled treatments. The lack of an efficient and comprehensive national program for asthma management is a hindrance to determining its immediate impact on the decrease in hospital admissions or on expenditures related to the disease.

The dissemination of data regarding the programs that have already been implemented in the country, such as those presented here by Lasmar et al., to fellow specialists and to the laity, is as important as the establishment of guidelines or protocols for asthma management. We hope that

the Brazilian Journal of Pulmonology may soon celebrate in its pages the effective implementation of a national program of access to asthma medication. The Brazilian Journal of Pulmonology, by disseminating distinct strategies for asthma management, and by discussing and criticizing their findings, successes and failures, plays a key role and makes a valuable scientific contribution to the improvement of these processes.

RENATO TETELBOM STEIN

Department of Pediatrics - Pediatric Pulmonology, Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS, Pontifical Catholic University of Rio Grande do Sul) School of Medicine, Porto Alegre, Rio Grande do Sul, Brazil

REFERENCES

1. Mallo J, Sole D, Asher I, Clayton T, Stein R, Soto-Quiroz M. Prevalence of asthma symptoms in Latin America: the International Study of Asthma and Allergies in Childhood (ISAAC). *Pediatr Pulmonol.* 2000;30(6):439-44. Comment in: *Pediatr Pulmonol.* 2001;32(3):263-4.
2. Neffen H, Fritscher C, Schacht FC, Levy G, Chiarella P, Soriano JB, Mechali D; the AIRLA Survey Group. Asthma control in Latin America: the asthma insights and reality in Latin America (AIRLA) survey. *Rev Panam Salud Publica.* 2005;17(3):191-7.
3. Lasmar LMLBF, Camargos PAM, Goulart E, Sakurai E. Fatores de risco para readmissão hospitalar de crianças e adolescentes asmáticos. *J Bras Pneumol.* 2006;32(5) 391-9.