



Editorial

Pharmaeconomics in Asthma[☆]

Farmaeconomía en Asma

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Asthma is a serious health problem associated with high morbidity and mortality. It affects all age groups, and prevalence is increasing worldwide.¹ Despite regional differences, prevalence in Spain is estimated at up to 4.7%.² Asthma is classified according to severity, with the most severe and poorly controlled forms (3.9% of all asthmatics) causing the greatest impact on both sufferers and healthcare systems.³

The disease is costly in terms of resources, and places a considerable economic burden not only on the national health system, but also on patients and their families. Society as a whole also pays a heavy price in terms of loss of quality of life, absenteeism from work and school, use of resources (visits to the doctor, complementary tests, hospitalizations, treatment, etc.), and mortality. Spain currently allocates nearly 8.9% of its gross domestic product to its healthcare budget, and asthma alone is estimated to absorb between 1% and 2% of total healthcare expenditure.⁴ The AsmaCost study⁵ published in 2009 estimated the annual cost of an asthma patient at €1726, a figure that increases in patients over 65 years of age and in those with severe disease. Based on these findings, the overall annual cost of asthma in Spain has been estimated at €1.48 billion. It is important to bear in mind that uncontrolled asthma accounts for 70% of the total cost of the disease, a fact that highlights the importance of achieving the level of control recommended in clinical guidelines.^{1,2} The situation is further aggravated by high rates of therapeutic noncompliance, even among patients with difficult-to-control asthma. Poor compliance among the subgroup of patients with difficult-to-control asthma is an important issue, as some of the therapies recommended in clinical guidelines as final treatment steps are extremely costly,^{1,2} yet they are often indicated in patients with poor adherence to treatment in previous steps.⁶

How and where to treat patients with severe, difficult-to-control asthma is widely debated, and strategies are shaped by the characteristics of each healthcare system. In Spain, a number of specialized asthma clinics have been set up in recent years with the aim of

improving evaluation and management of this patient subgroup. In order to optimize resource management, these clinics are evaluated and accredited by the Spanish Society of Pulmonology and Thoracic Surgery (SEPAR). Very few studies have explored the cost-effectiveness of asthma clinics. Domingo Ribas⁷ and Pérez de Llano⁸ found them to be cost-effective, based on an evaluation of their own experience in this context. These authors found that patients were better controlled, with fewer hospitalizations and emergency medical treatment for exacerbations. However, the cost of treatment was higher due to the use of more expensive therapies.⁸ Despite this, the authors found that asthma clinics ultimately save money, as the benefits of improved control of the disease outweigh the higher cost of treatment. It is important to emphasize that guidelines call on clinicians to make wider use of preventive therapies and to improve patient education, both of which are among the fundamental objectives of these specialized clinics.^{1,2}

New personalized asthma therapies are usually reserved for severe, uncontrolled patients. This factor has a significant impact on asthma-related healthcare costs, as the new biological treatments are extremely costly. One such drug, omalizumab, the first anti-immunoglobulin E antibody marketed for patients with severe allergic asthma, is recommended in the last treatment step in clinical guidelines.^{1,2} The cost-effectiveness of this drug has been evaluated in various studies, and it has been shown to reduce exacerbations and improve health-related quality of life.⁹ Levy et al.⁹ estimated the cost of each exacerbation prevented at €462.08, and the cost of each quality-adjusted life year (QALY), or 1 year of life lived in perfect health, at €26,864.89. On the basis of these figures, the incremental cost-effectiveness ratio of omalizumab is within budgetary limits. In order to reduce the cost of this therapy, Chiner et al.¹⁰ have suggested that omalizumab, hitherto administered almost exclusively in hospitals, could also be administered in an outpatient setting, even though it should be prescribed by an asthma specialist. According to the authors, outpatient administration is less costly and achieves the same clinical outcome as hospital administration. Other biologics with different profiles but presumably with equally high prices will shortly be available for asthma patients. As a prerequisite for administration of these new treatments, patients must be carefully characterized, and the drugs can only be administered by trained medical personnel. The healthcare authorities, in an attempt to make more effective use of these

[☆] Please cite this article as: Marina N, Gáldiz JB. Farmaeconomía en asma. Arch Bronconeumol. 2016;52:181–182.

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therapies, might ultimately require them to be prescribed by specialist asthma clinics.

In conclusion, asthma is a highly prevalent disease with a considerable proportion of severe uncontrolled patients who consume most of the resources allocated to treat this condition. For this reason, it is essential to perform cost-effectiveness analyses on which to base decisions to incorporate new procedures or treatments into the healthcare system. These analyses can allow experts to evaluate costs when submitting proposals to the authorities, and will ensure the best and most cost-effective use of our limited healthcare resources.

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