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Scientific letter

Severe Asthma Management in Spain: A Survey-Based National Study. Is it Time for a National Asthma Plan?

Manejo del asma grave en España: una encuesta nacional. ¿Ha llegado el momento de un Plan Nacional para el Asma??

Dear Editor,

Asthma represents a significant health burden, with 3 million patients in Spain.[1,2] The economic impact of severe asthma in Spain was estimated to be €8554/patient/year in 2019.[3] Between 20% and 70% of asthma patients are undiagnosed,[4] and 36% and 12% of these patients suffer from anxiety and depression, respectively.[5] Following the introduction of specialised asthma units (SAU) in Spain, the percentage of well-controlled asthmatics has increased, and the number of exacerbations has decreased. These units have also proven extremely cost effective.[6]

Spain has spearheaded the implementation of SAUs, and there are now more than 100 units accredited by national scientific societies[7–10]; geographically however, they are unevenly distributed (Fig. 1).[7,8] The objective of this survey was to evaluate the current state of severe asthma management in hospitals across Spain through a questionnaire distributed to clinicians from various specialties involved in severe asthma care. To capture the heterogeneity and multidimensionality of the management of severe asthma and associated type 2 (T2) inflammatory-mediated type T2 pathologies, we created the 18-item "2024 Observatory Questionnaire" organised into three key dimensions: (a) diagnosis and evaluation, (b) treatment and evolution, and (c) multidisciplinary management (Supplementary Table 1). The questionnaire was completed online by 189 professionals involved in severe asthma and T2-related disease management (46.56% pulmonologists, 35.98% allergologists, 15.87% otolaryngologists, 0.53% allergologists and pulmonologists, 0.53% paediatric pulmonologists, and 0.53% paediatricians). As shown in Fig. 1, there were differences in the distribution of respondents, with a higher representation of individuals working in Andalusia, Madrid and Galicia (≥10% participants). Respondents worked in centres with varying levels of complexity: 2.65% in first-level hospitals, 45.5% in second-level centres, and 51.85% in third-level hospitals. This study was conducted as a voluntary survey among physicians, with no interventions or sensitive personal data involved. Fort this reason, in accordance with institutional and regulatory guideline it did not require prior approval from an ethics committee.

Significant differences between Autonomous Regions were observed in all questionnaire dimensions, as detailed in Supplementary Table 1. Interestingly, the "diagnosis and evaluation", and the "treatment and evolution" dimensions showed similar degrees of differences (approximately 40%; 4/11 and 2/5, respectively) in their questions. The diagnostic approach to severe asthma differed among Autonomous Regions. For example, the use of the Asthma Quality of Life Questionnaire (AQLQ) ($p < 0.0001$) and other techniques ($p = 0.0475$) varied significantly. There were also significant inter-regional variations ($p = 0.0015$) in the referral of severe asthma patients to an ENT specialist. Regions also differed in their referral practices for specific conditions, such as chronic rhinosinusitis with nasal polyps (CRSwNP) ($p = 0.0095$), vocal cord dysfunction ($p = 0.044$), and otitis media ($p = 0.0445$). The availability of SAUs ($p = 0.002$) and their composition (pulmonologist [$p = 0.0265$], allergologist [$p < 0.0001$], ENT specialist [$p < 0.0001$], paediatrician [$p = 0.002$] and pharmacy [$p = 0.024$]) varied significantly between regions, as did the awareness of prescription guidelines and criteria for biologic therapy, with a significant difference ($p = 0.0255$) in the use of a specific criterion for prescribing a biologic. Therapeutic objectives when prescribing biologics also differed across regions, particularly with regard to controlling exacerbations ($p = 0.036$). The timing of the first efficacy assessment visit after prescribing biologics showed significant differences ($p = 0.034$), as did the tests performed during this visit, such as spirometry ($p = 0.0455$), the Sino-Nasal Outcome Test (SNOT)-22 ($p = 0.0145$), the AQLQ ($p < 0.0001$), and fractional exhaled nitric oxide ($p = 0.002$).

There was significant agreement among respondents from all regions on the importance of adopting a multidisciplinary approach in the management of severe asthma and CRSwNP ($p = 0.0375$). However, the level of multidisciplinary collaboration varies ($p = 0.005$), reflecting different stages of integration across regions.

The analysis of the results from the 2024 Observatory Questionnaire administered to professionals involved in the management of severe asthma across Spain (Fig. 1) showed substantial inter-regional variability in the approach to severe asthma, as shown in Supplementary Table 1.

The survey results confirmed the good quality of care provided by SAUs in Spain. Providing patients with severe asthma with specialised, multidisciplinary, high-quality care has many advantages: In terms of diagnosis, it allows patients to be phenotyped; in terms of therapy, it optimises the therapeutic arsenal by indicating targeted treatments, ensures that comorbidities are treated and follow-up is protocolised, and focusses on health education for both patients and healthcare professionals.[9]

This study also showed that SAUs are unevenly distributed across Spain, and brings to light significant inter-regional differences in the working methods used in these centres, leading to inequalities in the standard of care received by severe asthma patients, as shown in Supplementary Table 1. This should compel healthcare institutions and professionals involved in severe asthma management to make every effort to address these inequalities.

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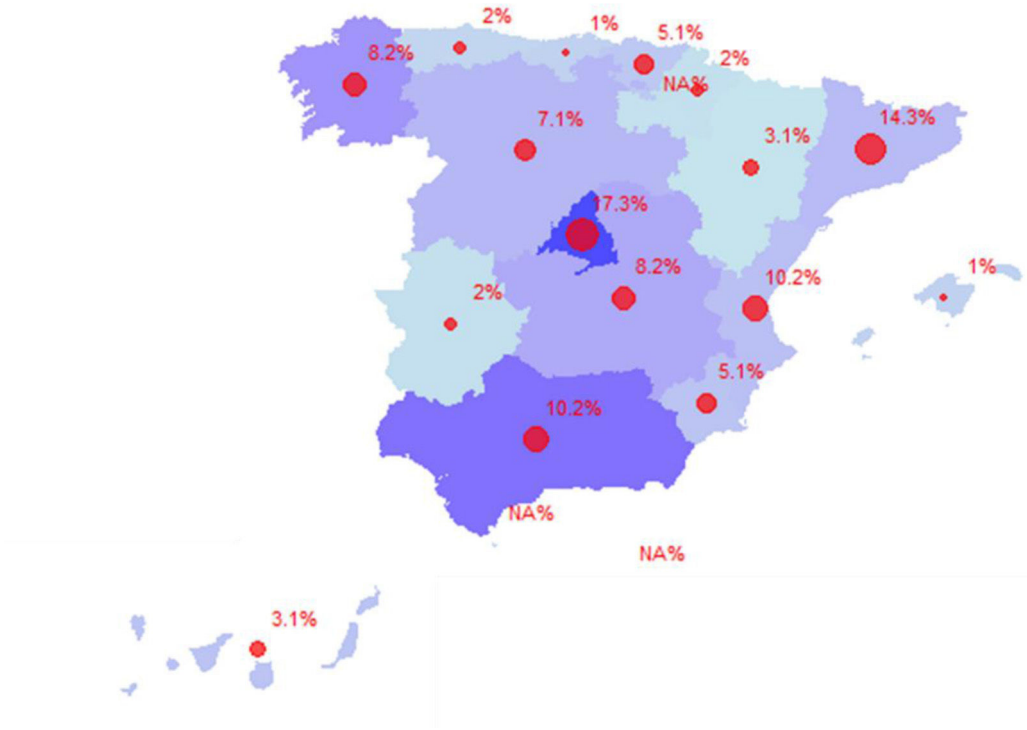

Fig. 1. Geographical representation of the availability of severe asthma units (red dots and percentage) and the location of questionnaire respondents (blue gradient as follows: Andalucia: 20.63%; Asturias: 3.7%; Islas Canarias: 4.23%; Cantabria: 2.12%; Castilla La Mancha: 11.64%; Castilla y León: 6.88%; Cataluña: 6.88%; Ceuta: 1.59%; Valencia: 4.76%; Extremadura: 0.53%; Galicia: 10.05%; Islas Baleares: 2.12%; La Rioja: 0.53; Madrid: 15.87%; Murcia: 4.23%; Navarra: 0.53%; País Vasco 3.7%).

This study has some limitations. For example, the uneven geographical distribution of respondents could have biased our results. Moreover, as participation was voluntary, certain types of centres may be over-represented and certain trends over-emphasised. However, this does not invalidate the direction or trends observed and confirmed in other countries, namely, that SAUs improve severe asthma outcomes, patient quality of life, and asthma control while reducing healthcare use and oral steroid burden.[10]

A key strength of this study is that the sample of participants is highly representative of the different Autonomous Regions and professionals involved in the management of severe asthma.

This survey shows the need for a National Asthma plan that takes into consideration the complexity of severe asthma and promotes the creation of SAUs throughout Spain, thus guaranteeing equal care quality for severe asthma patients and reducing the social and economic impact of this disease.

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Authors' contributions

All the authors contributed according to ICMJE guidelines for the authorship of the manuscript.

Conflicts of interest

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Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at doi:10.1016/j.opresp.2025.100408.

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