

## A critical review of methodologies for evaluating annual direct medical costs of asthma management

Evaluación crítica de los métodos para evaluar los costos médicos directos anuales del tratamiento del asma.

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Received: 14-05-2024 Approved: 13-09-2024 Published: 30-03-2025

https://doi.org/10.29262/ram.v72i1.1416

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We read with interest the article by Cano-Salas et al,¹ who aim to determine the annual economic burden of the disease from an institutional perspective using GINA's recommended classification in a retrospective cohort of adults treated at Mexico City's Instituto Nacional de Enfermedades Respiratorias (INER). We value the authors' efforts. However, we would like to express our criticisms of the authors' work. The authors stated that they estimated the cost using INER's 2020 unitary costs, which correspond to the amounts charged to patients.

The distinction between cost and charge is critical in medical economics because it ensures the consistency of all analyses. Cost refers to the amount paid by the producer, usually a hospital, for resources used during the production process, such as outpatient visits and hospitalization. Charge, on the other hand, represents the fee levied on the consumer, typically the patient, for the institution to achieve financial equilibrium and solvency.<sup>2</sup> Given these inherent differences, actual resource consumption should serve as a cost metric.<sup>3</sup>

Direct cost allocation necessitates elaborate processes of identification, measurement, and valuation.<sup>4</sup> Direct costs are financial outlays for resources directly related to medical activities, and they are commonly classified as fixed or variable.<sup>2,5</sup> Fixed costs, such as rent and taxes, do not change regardless of activity level, whereas variable costs, such as supplies, rise in proportion to activity, with each additional patient incurring incremental variable costs.<sup>6</sup>

Given the complexities of cost estimation management, it is critical to grasp the subtle distinctions between cost and charge. Moving forward, an in-depth understanding of direct medical costs and allocation methodologies is required for accurate financial analysis and resource allocation in chronic disease management.

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