



## Economic analysis in anesthesiology in Colombia

### *Análisis económicos en la anestesiología colombiana*

José Andrés Calvache<sup>a,b,c</sup>

<sup>a</sup> Editor-in-Chief, Colombian Journal of Anesthesiology. Bogotá, Colombia

<sup>b</sup> Professor of Anesthesiology Universidad del Cauca, Colombia

<sup>c</sup> Department of Anesthesiology, Erasmus MC University Rotterdam, The Netherlands.

In this era of a technological revolution in the health arena, we are constantly being confronted with new interventions for disease diagnosis, treatment, or rehabilitation. No health system is immune to challenges when it comes to cover high demand for resources required for these innovations which are increasingly more costly in relation to limited resources.<sup>1</sup> The ethical implications and the balance between medical autonomy and the resources needed to ensure sustainability of the health system have been subjects of discussion in Colombia.<sup>2</sup>

Economic studies have been designed to support decision-making by different players and users of health systems, including policy-makers, health management organization, managers of healthcare institutions, and health professionals.<sup>2,3</sup> Those studies take into consideration information derived from other research, including clinical trials or systematic reviews which offer information regarding efficacy and clinical effectiveness and, ultimately, provide results measured in monetary or clinical terms.

A discussion on new technologies is always welcome even if those new arrivals are not always better (in terms of efficacy or clinical effectiveness) than the existing or usual ones, but are almost always strongly advocated by different players in the health system. However, economic

studies can also be used to show providers the favorable economic rationale of the availability of a medication which, although costly, is the only treatment option, even in low incidence scenarios.

This issue of the *Colombian Journal of Anesthesiology* features the article entitled “Cost-benefit relationship of keeping dantrolene stocks from the point of view of healthcare institutions” by Rincón-Valenzuela and Gómez-Ardila.<sup>4</sup> It is an important attempt at using argumentative methodological and scientific strategies to solve the problems of our health system and improve communication with healthcare providers and decision-makers. Their study shows that costs incurred to ensure dantrolene stocks in healthcare institutions are, by far, much lower than those needed to pay for the consequences of its unavailability which are, obviously, unquantifiable in terms of human lives.

Dantrolene availability in some institutions, or at least for a cluster of institutions in geographic proximity, has not been widely studied in Colombia. This is a flaw that affects the quality and safety of anesthesia in Latin American countries.<sup>5</sup> Decision-makers in hospitals may choose to not purchase and keep the drug in stock based only on the incidence of malignant hyperthermia events in patients receiving general anesthesia. The study by

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Correspondence: Sociedad Colombiana de Anestesiología y Reanimación (S.C.A.R.E.). Cra 15a No. 120 - 74. Bogotá, Colombia.  
E-mail: [revcolanest@scare.org.co](mailto:revcolanest@scare.org.co)

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Rincón-Valenzuela and Gómez-Ardila shows clearly that financial consequences derived from deaths related to the occurrence of this event and their legal and administrative implications are far greater than the thresholds considered. They point to the pressing need to initiate coordinated action between healthcare institutions and territorial entities to ensure the timely availability of this drug.

Cost-effectiveness analyses are seldom found in Colombian scientific literature on anesthesiology or other related specialties. Worldwide, there is a clearly recognized need for this type of research in anesthesiology, but there is still a long way to go just as there are many other areas to explore and strengthen, for example, health economics.<sup>6,7</sup> Anesthetists are frequently faced with a choice between different treatment strategies, but usually with little information about a comparative cost-benefit relationship. The article mentioned above may be an example to

be replicated in other equally critical settings of our specialty or other related disciplines in Colombia.

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