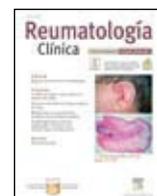




# Reumatología Clínica

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## Editorial

### Economic evaluation of health interventions: the opportunity cost of not evaluating

### Evaluación económica de intervenciones sanitarias: el coste de oportunidad de no evaluar

Jaume Puig-Junoy<sup>a,\*</sup> and Juan Oliva<sup>b</sup>

<sup>a</sup> Centro de Investigación en Economía y Salud (CRES-UPF), Universitat Pompeu Fabra, Barcelona, Spain

<sup>b</sup> Departamento de Análisis Económico, Facultad de Ciencias Jurídicas y Sociales de Toledo, Universidad de Castilla-La Mancha, Investigador afiliado al CRES, Toledo, Spain

## ARTICLE INFO

Available online October 6, 2009

In the international context, the EE of drugs is reaching its golden age in Europe. The main cause of this is the promoting role that public authorities play in its development, using these tools as a key element in adoption and diffusion strategies for health innovation. A good deal of this tendency is explained by the awareness of persons responsible for public health that combining citizens' access to therapeutic advances that improve health and financial sustainability of health systems could be threatened by an indiscriminate adoption of health related technology.<sup>2</sup>

Characterized as a fourth barrier or a fourth guarantee, the first expression reflects the prevention or mistrust that is generated in some of the actors when a new measure is introduced which could delay the incorporation of drugs that have proven their efficacy, quality, and safety into the therapeutic armamentarium. On the contrary, the expression of the fourth guarantee makes reference to an additional condition that innovations would have to show in order to obtain public funding: efficiency. In other words, the social value of a new drug would have to be demonstrated to be larger than the social cost it represents.

The formula for the introduction of these procedures into the health related decision-making process is not unique. In that way, every country, depending on their organization, health culture means and degree of interest of those who decide have formulated their own approach. A paradigmatic case was that, in 2002, of the creation of the Swedish Läkemedelsförmånsnämnden (LFN). This experience follows in the tradition adopted since the nineties by countries such as Canada and Australia when they created a committee of pharmaceutical benefits, as part of the health ministries. This committee has among its defining principles, the defense of human dignity as well as the coverage of citizens' necessities, in the understanding that in the

assignment of public resources, efficiency must be one of the guiding principles. After receiving a report of the merchandisers of a drug, the LFN, in a maximal period of 180 days it must emit recommendations, be it rejecting the prize requested and public financing of the drug or proposing conditions for its recommendation (for example, shared risk contracts).<sup>3,4</sup> Between 2002 and 2005, LFN has rejected public financing of 10% of the new medications under evaluation, based on the fact that the marginal benefit and the cost-effectiveness relationship have not been established.<sup>5</sup> In addition, the decisions of the LFN have approved public financing of 2 medications for osteoporosis (Protelos and Forteo), limited only to subgroups in which the cost-effectiveness relationship is favorable.

LFN's experience is not unique. The cited examples of Australia and Canada could be joined by those of European countries with similar institutions, as would be the case of the Netherlands or Germany. However, there are alternative formulas, among which the most successful is the one proposed by the National Institute for Health and Clinical Excellence (NICE). The creation of this institute in 1999 is a watershed in the European context. NICE is a publicly funded organism but was granted a great deal of independence that, along with transparency in its acting, active and direct participation of different agents (industry, university, clinicians, patients, etc) in its processes and an elevated degree of self-criticism and high standards, have become its defining characteristics. EE is key in the recommendations (favorable or not) of NICE on the use of a medication (or other health technology) according to a determined indication, even if its field of action occurs once the medication has been approved and commercialized. Exhaustive reviews of the medical literature and the economical analysis that NICE assigns to an external institution can prolong the process of evaluation for 2 or 3 years and, in any case, the commercializing businesses have the possibility to retort, and NICE can review the reports in some years. Not only has its influence in the National Health Service been growing, but also beyond its frontiers its case has been studied with interest from the beginning and has become a key reference.<sup>6,7</sup>

\* Corresponding author.

E-mail address: jaume.puig@upf.edu (J. Puig Junoy).

In Spain there is a growing activity and a potentially normative framework exists for access to these types of experiences. The Royal Decree 1030/2006, of September 15, by which the common services branch of the National Health System is established, and the procedures for its update include efficiency (cost-results) as well as one of the elements to consider in “the definition, detail and update of the common service branch.” However, the Rational Use and Medication and Health Services Guarantee Law, of July 28, 2006, makes no reference to the cost-effectiveness relationship, and we will have to wait to the development of rules to see how the abovementioned efficiency criteria will be incorporated into the processes of price negotiation and medications’ public financing decisions, as well as the role that medication EE will play. The creation of a so called Committee for the Evaluation of Therapeutic Use for the new drugs could be key in normalizing the economic evaluation as a fourth guarantee if it receives sufficient political support.

From a social perspective, the concepts of therapeutic usefulness and the degree of innovation of new drugs must be related to the social added value with respect to available treatment alternatives and the incremental cost effectiveness added cost.<sup>8</sup> The focus of the cost effectiveness relationship is adequate for coverage decisions for a determined therapy as determined by public insurers, of the price they are willing to pay for it, of clinical situations and group of patients it is recommended for. The analysis of incremental cost effectiveness and the establishment of a threshold that indicates the maximal cost that will be paid per “year of life adjusted for quality” gained are the essential elements of this approximation, which does not need price fixing for new medications in the threshold of the willingness to pay.

New medications (and new medical technology) must not only be more effective than placebo, but also have relative efficacy over the drugs they are competing against or substituting. Available evidence indicates that in many cases, the marginal contribution is very small but, in contrast, the cost is much more elevated. Standardization of EE procedures,<sup>9</sup> requirements and performance in transparent and independent conditions of this type of studies for innovation (farthest from promotional purposes related to industry marketing) and the establishment of a threshold indicating the maximal cost per unsurpassed AVAC (for example, the €30 000 per AVAC or a better documented analogous value, flexible but representative of the social disposition to pay) would be acting on the line of determining the public disposition to pay in relation to the additional value of the drug and to propose an unequivocal orientation of the research activity.

The real cost thresholds for every additional AVAC must be flexible (more a guide than a barrier). But they must also be liable of posterior review. At the moment of authorizing and deciding coverage and price, information on medications is still scarce (especially those aspects of greater interest: the absence of studies in real conditions and with respect to active comparisons). EE can deal with uncertainty on parameters and models, but it can also be very sensitive to modifications, requiring reevaluation and decision review when faced with new information affecting these parameters.

The practical application of EE requires of the adoption of a series or minimal or standardized rules for the methods that ill be adopted to perform economic evaluations in the health care area. A review of ten studies of EE that compared two or more antagonists of tumor necrosis factor alpha (TNF $\alpha$ ) in the treatment of rheumatoid arthritis already pointed to the importance of the difference on methodological quality of published studies, an aspect that must be fundamentally used to profile strong and weak points of available evidence.<sup>10</sup> From a purely research standpoint, employing previously standardized or agreed upon methods is not imperative. Even more, from the scientific logic, the advancement of knowledge involves overcoming such methods for stronger or better ones, and methodological discussion is not a problem, but

a means of advancement.<sup>11,12</sup> However, it is obvious that most of these studies are performed with a very concrete end: to provide relevant information to the health decision maker. In the measure in which a series of elements are shared by the systems actors, more comparisons between studies and the usefulness of this type of analysis in the decision making process will be evident.

Among the elements most commonly evaluated by the economic evaluation guides, we can find the reach and objectives of the analysis to be performed, the perspective to be used, the comparison to be employed, the most useful evaluation type (cost minimizing, cost effectiveness, cost utility, or cost benefit), the quality of the sources of efficacy data and/or the effectiveness to be used in the analysis, the most adequate form of measuring and evaluating both the resources and the results in health and well being, the more adequate timeline for capturing costs and the most relevant temporal benefits, conditions in which modeling techniques, discount rates, and equity criteria that implicitly or explicitly would be incorporated into the analysis would be employed, as well as conditions that would possibly guarantee the transfer of the results achieved to other means and populations and the presentation of the analysis that include the motivated exposure of the study limitations, the way in which the researchers conclusions could be reflected and the exposition of conflicts of interest, both potential and real.<sup>13</sup> Although it is frequent to mention that there is no common methodology among the official guides of different countries, there is agreement on approximately 75% of the methodological aspects.<sup>14,15</sup> Discussion points (perspective to be used, cost gamut and included benefits and their evaluation) have a lot more to do with normative aspects than positive ones.

Logically, the adoption of the fourth guarantee obliges risk taking by imposing an additional dimension to the considered in the decision making process (the balance between the social value of innovation and its cost). However, not to include the efficiency criteria into this process has even greater risks associated which would affect the financial sustainability of the system and would reflect on the quality and access to the attention received. In last place, evaluative culture demands transparency and technical rigor in the decisions adopted. This does not mean that the decisions should depend exclusively or fundamentally of a cost-effectiveness relationship, nor that decisions would be left in the hands of technicians but rather that, on the contrary, technicians will provide the citizens’ representatives with an additional tool that permits public resources to be allocated in a more transparent and rational manner.

## Financing

This editorial is part of a group of projects financed by research grants SEJ2007-66133 of the Education and Science Ministry, and an unrestricted grant given to CRES-UPF by the Merck Company Foundation, a philanthropic branch of Merck & Co. Inc., Whitehouse Station, Nueva Jersey, United States.

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