THE ROLE OF UNITARY COST DATA RECORDS FOR DECISION MAKING IN THE ROMANIAN HEALTH SYSTEM

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INTRODUCTION

The decision-making process in the health field is a process that must follow the dedicated steps of decision-making by involving, sequentially all actors and related stages so as to lead to the best decision based on valid, solid, scientific and available evidence.

In reality, there are many situations in which the lack of records can block the decision-making process or lead to often erroneous decisions. In such situations, the existing gap in knowledge, expertise or experience must be filled with as much information and experience as possible that is scientifically valid and can thus support the decision-making process.

If at the clinical decision level, the medical team is based on the level of knowledge accumulated and shared by the medical team members, but also on the practical experience of the team, then the evidence-based medicine comes to complete the picture of the necessary elements for decisional support from a clinical view.

Unlike the clinical decision, the managerial and political decision must be based on scientific advice that can provide the valid evidence needed to make the best evidence-based decisions.

One of the current trends in health management, especially in the evidence-based decision-making process is the use of indicators of effectiveness and efficiency of activity. The level of health costs together with the level of results obtained become absolutely necessary analyzes in the attempt of governments to control the high costs of modern medical technologies, goods, products and services.

The variability of medical practice is one of the elements that lead to difficulties in the analysis of cost and outcome data. The variability of medical practice is one of the elements that lead to difficulties in the analysis of cost and outcome data. In order to stay at the basis for decisions, cost data must be uniformly collected and must use a unitary methodology and tools, so that their processing and aggregation and analysis can be done without compromise and avoiding the induction of systematic errors and thus invalidity of data and results obtained from these data.

At present, in Romania there is no unitary system for collecting cost data at the hospital level, so the policies in the field are not based entirely on valid and solid evidence. One of the current trends in health management is the use effectiveness and efficiency indicators in the evidence-based decision-making process.

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A detailed knowledge of resources consumption patterns in hospitals is needed and this should be complemented with an in-depth cost analysis in order to be able to calculate standard costs and relative values that allow a real and informed assessment of the level of consumption in hospitals.

Keywords: cost data, hospital, health policy

HOW MUCH DOES A MEDICAL SERVICE COST?

This is the question for which many actors in the health system would like to have the correct answer, but to which, at least for the current Romanian context, we are not yet in a position to give a definite answer.

Financial constraints direct or rather limit the actions and measures that will be taken, and this is to the detriment of a compromise that ultimately has an impact on the health of the population. The budgets of the health authorities and the budgets of the health units and last but not least the level of compulsory medical insurance (for the current Romanian context) fail to create a necessary framework for elaboration and implementation of the most effective solutions to manifest.

In order to know how much a medical service provision costs, for example at a hospital level, the cost data must be collected exhaustively by identifying and recording all consumption by relevant consumption categories. Only through this detailed and comprehensive approach a set of cost data can be processed; the level of detail is essential for the possibility of aggregation, processing, separation and allocation of resources at the level of medical service, patient/hospitalization episode, ward or hospital.

The higher the level of detail and completeness of the cost data collected, the more useful is the information regarding the cost analysis and economic evaluations that can be performed on the cost data.

Regarding the cost analysis modalities, there are at least two classic approaches that can be used:

1) Standard costing method, top-bottom approach (ABC), respectively 2) Micro-costing method bottom-up approach (CBA) [1]; both methods can be used successfully, depending on the context given. It is important to pilot and decide the best one that is adapted to the conditions and particularities of the national context.

HOW USEFUL IS IT TO KNOW THE COSTS OF A MEDICAL SERVICE?

Usually, the medical activity is evaluated through clinical evaluations and case management, but also
through the analysis of access to services or the availability of medical facilities. But even after these assessments are made, there are still questions that decision makers need to ask when they want to know how much a service costs, what benefits (individual or societal) are obtained by providing a service, or when they need to choose from two or more solutions for a problem.

In these situations, the decision must be based on valid data obtained so that the decision risk is minimal or absent. The more valid the cost data, the more valid the data on the results/costs of the medical activity and the lower the risk of making an erroneous decision regarding costs and results is.

In exercising the managerial functions, one of the great problems faced by a manager is the financial constraint; the lack of money becomes a regular concern of the manager when he plans, organizes, coordinates, leads or controls the activity he has under his control.

Any actor in the medical sector who has to make non-clinical decisions (managerial or political), eg to choose alternatives that involve the economic component (costs, expenses), he needs scientific advice to obtain valid evidence on costs, respectively the results of those alternatives.

Knowing the cost of a service brings essential benefits in the decision-making act, when the political decision involves choices to be made in choosing policies, strategies, measures, alternatives, interventions, services, etc. for which they must be proven to be effective (in terms of results), but also more efficient (in terms of costs and results obtained) in comparison with the other alternatives.

WHAT IS THE CURRENT SITUATION regarding the availability of cost data in Romania

The current reality highlights major problems regarding the availability of the cost data related to the provision of medical services, and in particular for hospital services.

The hospital sector in Romania consists of all medical services that are provided in public and private units with beds.

Following the implementation of the DRG system at the level of hospitals in Romania (public hospitals and some private hospitals), most hospitals record clinical data at the patient level in order to declare and to be reimbursed for clinical activity depending on the complexity of cases treated. In this sense, even if there is a unitary collection, at national level, this is strictly limited only to demographic and clinical data.

There is no unitary system for collecting cost data related to hospital medical activity, although there have been attempts to implement such a system (eg the Exbuget 1 application dedicated specifically to cost data at the hospital level), and some private hospitals have such of cost data records.

Initiatives are needed to create the framework for a uniform collection at national level so that the level and structure of costs are known and support decisions in the field.

What are the feasible approaches?

Such an initiative is represented by the scientific approach within the Project "Improving the Quality and Performance of Hospital Services through Cost Evaluation and Standardization (CaPeSSCoSt)".

By developing unitary methodologies and developing and implementing these tools and the unitary framework for their use, significant differences in the coverage of hospital service needs at the regional level will be reduced and the reform of the hospital network at the national level will be supported.

The project will identify and enable sustainable measures to correct situations where there is a reduced capacity to analyze objectively and uniformly and in a timely manner, but also how hospitals operate (the most expensive segment of healthcare) and how the health funds are spent at this level.

The project will significantly contribute to increasing the institutional capacity, both of the institutions in the health system and of those in other fields, especially in the field of public finances, regarding the evaluation and planning of the necessary funds and the way of allocating them by achieving and implementation of IT applications costing; all these contributions appear in a context in which, at the level of the system of capitalization of the results in the Romanian health sector and due to the volume of data varied as structure and source, it is absolutely necessary to develop data technologies both for facilitating the data storage and especially for making real-time selections according to objective selection criteria.

Thus, the computer applications that will be developed through the project will allow the realization of successive simulations based on historical data and on hospital services and costs related to the provision of these services in order to determine the causes leading to financial problems of hospitals and to combat their effects. Simulations can be performed simultaneously, both at the level of each hospital and centralized and will allow highlighting the existing consumptions differences and discrepancies and will make it possible to monitor the allocation and spending of public money at the level of all hospitals in Romania. At present, hospitals use sporadically or not at all different tools (there is no unitary formula developed at national level) for calculating and evaluating their own expenses and do not calculate or track the real costs. These IT applications developed through the project, once implemented, as they will be used, they will streamline and identify interventions to highlight and reduce system losses and will improve results in real time and also the time required to solve problems will be considerably reduced.

At the same time, the project will contribute to measuring the quality and utility of these services and, consequently, will contribute to the allocation of funds on cost-effectiveness criteria. By providing unitary methodologies and tools, the process of developing public policies in the field of costs and quality of hospital services will be rigorously documented; it is expected the project will have a major impact on improving decision-making and strategic planning capacity and will led to fair, balanced and more
efficient funding and will facilitate the implementation of the objectives of the National Health Strategy 2014 – 2020; by all mentioned above, it will support the improvement of the quality and performance of hospital services and equitable access to these services for all patients in Romania.

We specify that the development of a common computer application at national level responds cumulatively to the needs of correct identification of all data necessary to be collected at the hospital level in order to determine and subsequently monitor the costs of hospital services, thus solving the current situation where these costs are unknown and are not calculated and the allocation of funds and the monitoring of their expenditure is not systematized, as there is no basis for this.

It can be note that currently, the computer applications used at the hospital level (including the national platform PIAS (health insurance information platform)) do not collect or track data on the costs of hospital services (or health services in general). The calculation of costs and the elaboration of cost standards of hospital services represent the basis for calculating the relative value (VR) of hospitalized cases for which the National Health Insurance House finances through the DRG mechanism, given that the relative values currently used are too little or not at all adapted to the Romanian context (initially being “borrowed” from the Australian system); over time, this aspect has been the source of much dissatisfaction, both among service providers (hospitals) and central public health administration institutions.

**Conclusions**

Medical practice is the mode of action of professionals who provide health care services at a given time. While the term “practice” can be assimilated to the exercising a profession (medicine), “group practice” - (medicine) is the practice of medicine by a group of professionals who share their premises and other resources.

In the case of Romania, the medical practice guidelines already developed are the basis of hospital medical practice in many hospitals that have developed their own medical practice protocols adapted to the local context, specific to the hospital, but the level of use and impact on quality and efficiency is unknown. Currently, there are no databases or computer applications used at the hospital level to collect and track data related to the costs of hospital services. A detailed knowledge of resources consumption patterns in hospitals is needed and this should be complemented with an in-depth cost analysis in order to be able to calculate standard costs and relative values that allow a real and informed assessment of the level of consumption in hospitals.

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**References**