Value-Based Health Care in a Public Hospital in Brazil

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Commentary

Healthcare associated costs are growing. For instance, in developed countries as in United States, they may reach sums that encompass 17% of the GDP. In Brazil, total healthcare costs comprise 9% of the GDP, with around half of that related to the public system [1]. Despite lower total and per capita expenses when compared to US, such costs suffered a 2-fold increase in less than 10 years, from 80 billion Brazilian Reais, in 2002, to 160 billion Brazilian Reais, in 2011 [2], what is considered to be insufficient to provide an adequate care to around 150 million citizens which depend on the public health system (approximately 50 million are insured by the private health system). Thereby, whereas public system provides care to 76% of the Brazilians, only 46% of the total healthcare costs are destined to it, resulting in a much lower public expenditure per capita than observed in the private system [3-5].

Demographic transition, population aging, increased costs of new procedures and technologies have imposed to healthcare systems worldwide a challenge, by which conflicting need to be confronted: improved outcomes and reduced costs. Researchers, non-profit organizations and governments have committed themselves, in the past few years, to pursue ways to optimize health systems performance. The concept of “value” in healthcare has been recently revisited and is currently understood as what really matter when delivering quality and effective care: the balance between outcomes and costs, naturally encompassing efficiency [6]. The way to assess value is by tracking patients and costs longitudinally, but shifting focus from volume to value is a huge challenge [7].

Outcomes, the numerator of the value equation is a complex variable to be measured. For a single medical condition, no single variable will be able to deeply reflect the results achieved during treatment. For different medical conditions, near-term survival versus long-term quality of life must be weighted, and dimensions related to the process of recovery and sustainability of health should not be neglected [7].

In a new tertiary public hospital in Sao Paulo (Brazil) - structured through a public-private partnership between the Hospital Israelita Albert Einstein (Sao Paulo/Brazil) and the Brazilian Ministry of Health [8], an experimental management system involving value-based care is being structured. Through a 3-years study protocol, all patients admitted to the hospital will be longitudinally followed, and their outcomes and direct costs will be assessed. Outcomes were defined with specialists of each area, intending to be simple to measure and highly relevant to patients. Those outcomes were arrayed in a threeteried hierarchy, encompassing variables related to the health status achieved (survival), to the process of recovery (length of stay, adverse events, and healthcare-associated infections), and to the sustainability of health (readmissions, treatment complications) [7]. Such selected variables will be collected as part of the regular process of patient care, through special modifications introduced into the hospital Patient Data Management System. Independent risk factors related to mortality and high costs will be analyzed. Correlations will be tested between outcomes, costs and different groups of patients (categorized by demographic data, disease-related groups- DRG, adverse events and complications).

The other issue when discussing value in health systems is related to the methodology for cost determination. Usually, costs are not calculated after a complete treatment cycle, but by each department, each procedure, individual service or specialist involved [9]. Most of the total cost of a full cycle of care is attributed to shared resources as facilities, physicians, staff, and equipment, and it should be incorporated in total costs of the real and individual resource usage, and not as averages [7]. Considering what cannot be measured might not be managed, opportunities to reduce costs will be limited, and an efficient value-based health care system might not be implemented. Cost management in a health system entails process definitions, resource allocation, and establishment of standards in order to seek for quality and safety. In such context, quality indicators should more than process measurements, but true outcomes [7]. In the current project, costs will be analysed in detail by the methodology of the total absorption costing, executed by the accounting department of the hospital.

A specially developed and dedicated BI will integrate outcomes and costs data. Results will be summarized and analysed by a team of researchers and health managers at each 6-month. A quality and safety team will be responsible, as a part of the hospital management system, to propose value-based changes and share ideas with the different hospital departments, aiming to find opportunities for efficiency improvement. The context of this new public hospital, which runs based on process standardization and on outcomes and costs monitoring of the full cycle of care will favour minimization in the variability of care and easily identify sources of cost variation and unfavourable outcomes. Of course some barriers linked to the classical medical training, physician-centred care, and lack of attitude should be addressed and overcame.

In summary, measuring, reporting, and comparing outcomes are supposed to be currently the best way to implement value-based healthcare, improve outcomes and make good choices regarding cost reduction. Seeing and sharing (with different departments inside the hospital, or benchmarking with different institutions) the whole chain of events and interventions during a full treatment cycle may allow the best opportunity to reduce costs, which is often to spend more on some services to reduce the need to others, whist rewarding providers for
efficiency in achieving good outcomes and creating opportunities for innovation [7]. We expect that, while assessing outcomes and costs, and intervening prospectively in the internal flows and processes of a quaternary public hospital in Brazil, to provide to Government and Brazilian population, unique data about individualized health care costs per patient and disease groups. In addition, we expect that our data could contribute, in future, to the improvement of resource allocation strategies in the public health system of our country.

References