Editorial

Economic Impact of Chronic Ischemic Cardiopathy Treatment in Brazil. The Challenge of New Cardiovascular Technology Inclusion

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Cardiovascular diseases are the main cause of a morbidity and mortality in Brazil. They have a significant impact on the Health Ministry budget, especially concerning their high complexity. Due to the growing demand for funds, the Secretaria de Atenção à Saúde do Ministério da Saúde (Healthcare Secretariat of Health Ministry) prepared the Política Nacional de Atenção Cardiovascular de Alta Complexidade (National Policy of High Complexity Cardiovascular Care).

In 2002, 1,216,394 admissions due to circulatory system diseases were recorded, representing 10.3% from total hospitalizations in Sistema Único de Saúde – Unified Healthcare System - (SUS). Financially, clinical and surgical cardiology admissions amounted to 17%, a rate higher than all other specialties[1].

Amidst the circulatory diseases, heart failure was responsible for 30.6% of admissions and the diagnosis of "other heart ischemic diseases", 10.6%. The financial impact for the Healthcare System is greater than the quantified one. SUS values regarded as expenses do not correspond to the real cost with cardiovascular disease treatment. A recent study on heart failure cost showed the difference between values refunded by SUS to hospitals and the real cost for hospitalization due to that disease[2].

The indirect cost represented by unproductiveness, absenteeism and early death due to cardiovascular diseases is another economic component. A Brazilian university hospital study showed that 28.5% of heart failure treatment patients had early retirement due to the syndrome[2].

The high prevalence of chronic ischemic cardiopathy accounts for the extraordinary use of funds in treatment and rehabilitation. In 2003, SUS financed 30,666 coronary angioplasties with stent implantation and 19,909 myocardial revascularization surgeries, representing a total of approximately R$ 281 million.

The integration of Bare Metal Stent (BMS) to SUS, in 1999, has produced a significant change in the intervention treatment of ischemic cardiopathy patients. Myocardial revascularization was the main type of intervention treatment until 1999. Three years later, the number of coronary angioplasties increased in more than 100%. In the same period, there was a significant reduction in myocardial revascularization surgeries. Conventional stent (BMS) treatment benefits were important, but with limitations in some subgroups, especially within the little caliper and greater extension vessel diabetic patients, in which intra-stent restenosis is considerable in the first six post-procedure months.

Despite the increase of treatment initial cost, Drug Eluting Stent (DES) development, non-available at SUS, provided significantly lower intra-stent restenosis rates in this subgroup of patients[3,4]. Matching budget restriction with the need for assessing and including new cardiovascular technologies is an impasse faced by SUS.

Such contradictory scenario has been raising interest among academicians in the search for new solutions, as we need new areas of knowledge to help us make decisions in a fund scarce environment.

Healthcare technology incorporation assessment is an interdisciplinary knowledge area to help that selection process. It must take into consideration the functioning and/or impact of healthcare products and services, programs or policies on healthcare service promotion, maintenance and production.

Assessment of a technology to be incorporated by healthcare system, either public or private, is characterized by a systematic, critical and thorough review on the available literature. Aspects as intervention effectiveness, its economic analysis and potential impact on healthcare system, which means, its contribution to health promotion, maintenance or rehabilitation, must be taken into consideration. Ethic aspects and rightness matters must be regarded in assessment the process.

As a result of the fast technological development, especially in cardiovascular sector, such assessment process becomes indispensable, not only for identifying valuable interventions for the healthcare system, but also for the need of a selecting process among alternatives which beyond doubt add value to the healthcare system.

The Centro Paulista de Economia da Saúde – Healthcare Economics Center of São Paulo (CPES) of Escola Paulista de Medicina (UNIFESP) has been preparing an estimate of the impact on SUS budget with the use of pharmacological stent, with data from 2003.

Impact model premises on budget are: conversion from conventional to pharmacological stent, number of stents/patient/procedure; % of re-interventions through conventional stent restenosis; % of re-interventions through pharmacological stent restenosis; stent prices, SUS-paid HAA (Hospital Admission Authorization) values to hospitals for angioplasty and myocardial revascularization

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surgery; post-procedure Clopidogrel price. Such model has variable premises according to hypothetical population access percentage to and purchase price of pharmacological stent, and percentage of avoided re-intervention in the following 12 months. Those variations explain possible circumstances from 12.8% to 24.4% (R$ 24,272,308.00 to R$ 44,458,162.00) of price increase in the first 12 post-procedure months for SUS.

Healthcare technology assessment agencies as NICE[5] and AETMIS[6] have been helping healthcare system sponsors in the United Kingdom and the province of Quebec, in Canada, to incorporate pharmachological stent in cardiological practice.

Dispute on new technology inclusion in SUS is an opportunity for Sociedade Brasileira de Cardiologia (Brazilian Cardiology Association) to promote method development to assist cardiovascular healthcare policy formulators in the selection process among available alternatives, by quantifying benefits for each cost unit and estimating the advantages of incorporating new diagnoses and therapies for the general public.

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