Cost-effectiveness, cancer burden and financial crisis: a perfect storm

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“When you see that trading is done, not by consent, but by compulsion—when you see that in order to produce, you need to obtain permission from men who produce nothing—when you see that money is flowing to those who deal, not in goods, but in favors—when you see that men get richer by graft and by pull than by work, and your laws do not protect you against them, but protect them against you—when you see corruption being rewarded and honesty becoming a self-sacrifice—you may know that your society is doomed”. Any Rand, 1950.

Financial crisis has taken medical oncologists and their patients, both together to the eye of the storm. Those devoted to economic analysis of the Spanish National Health System (NHS) patrol drug prescriptions as if oncologists and patients were spendthrifts looking to bankrupt the entire NHS; and to make matters worse as if we were irresponsible. In this regard, many have included in their vocabulary a word, cost-effectiveness, and this single word is used as a weapon to decide therapies, to guide clinical practice and to re-launch our battered health budget. Now, we have no academic defense against this “smart” approach when we try to decide the best therapy, because we have never been trained on economic analysis. We only know how to interpret clinical trials and how to put scientific evidence into clinical practice, changing reality for our cancer patients. However, it is only a matter of time that medical oncologists would analyze the truth behind cost-effectiveness. Obviously, cancer incidence is increasing and, as we have no curative approaches for all metastatic patients, we need new drugs and strategies to improve progression-free survival, overall survival and

quality of life. If we combine these two data, economic budget to treat cancer in Western countries tends to infinite and patients diagnosed with metastatic, incurable disease will never recover enough to produce anything for gross domestic product. Hence, health managers, recently introduced to economic analysis, but never to clinical interpretation of clinical trials would run the risk of succumbing to temptation to “save” pharmacy budgets at incurable patient’s expense. Subsequently, we have to tell the difference between varieties of economic analysis, because outcomes in terms of clinical practice are completely different. Economic analysis is not an objective; it is a way to improve clinical results and the means to guarantee a universal access to excellence for cancer therapies, helping physicians to decide between different options of therapies. They are tools. So, when we face a budget with the only purpose of reducing costs, if we do not evidence that the two approaches we are comparing get the same clinical outcome, we will move forward to get no therapy to our metastatic, incurable patients. It is clear that no one could afford that decision, but we need to know that this is the upper limit for cost-reduction studies that do not take into mind clinical outcomes in the name of cost-minimization study. Take care this should be absolutely different from a life-minimization approach. Other singular economic analysis evaluates the budget under two possibilities of therapy in terms of benefits, and benefits are calculated in Euros. Consequently, the question for cost–benefit studies is how much money will I get if I allow oncologists to administer this therapy to this patient instead of an alternative? It is obvious that “benefits” are very difficult to calculate with this approach, because the patients and their families may consider their time of life is valuable, probably more precious than all the tea in China, than all Euros politics spend on “quality of life”. Additionally, the upper

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limit to calculate benefits must include invaluable aspects that are objectively impossible to put into Euros. Therefore, economic analysis for cancer strategies must include clinical outcomes to avoid the upper limit of analysis described above. Two economic analyses that include clinical outcomes are widely used: cost-effectiveness and cost-utility. These economic analyses compare costs underlying the clinical outcomes or quality of life values. Conversely, these types of studies have a very important limitation; we have no objective threshold to consider, whether a strategy is cost-effective or not. In this regard, academy and many regulatory agencies consider that 30.000 Euros per unit of clinical outcome (gained years of life, adjusted to quality of life and so on) could be an accepted limit. Curiously, this limit has not changed for 30 years. Dealing with this limit, when 30.000 Euros (at 1980s) are updated, we observe that the underlying asset have changed two orders of magnitude. We cannot understand why the limit has not been changed properly. Furthermore, this threshold could be optimum for Spain (by now), but could be excessive for Turkey or scarce for Sweden, because cost of living is completely different between those countries. In order to reduce this confusion factor, WHO has proposed a cost-effectiveness threshold based on gross domestic product per capita (more than three times GDP per capita is not

cost-effective, 1–3 could be and less than 1 GDP is the standard). Finally, if national health authorities want to control cancer budget they need to modify a few additional things. We do agree with the fact that you can modify only the things you know. In cancer budget, we only know the costs of drugs and personnel. But this accounts for just one out of three Euros that our society invests on cancer, whereas 66 % is without effective control. Probably, additional efforts need to be done to incorporate analytical accounting to the entire Spanish (NHS). Otherwise, burden of proof will rely exclusively on both oncologists' salaries and future cancer patients but never on the rest of budget that accounts for two-thirds of total costs.

In summary, cost-effectiveness analysis may help us to decide better therapies for our patients. In this regard, as we are the only ones trained enough to interpret clinical trials and clinical trials provide the outcomes of concrete action; this should be one of our tools to decide on therapies. NHS manager's duty is to provide funds to support truly cost-effectiveness clinical decisions suggested by oncologists, directing their efforts towards unproductive, uncontrolled costs. These costs, when controlled, will effectively reduce final budget without any risk for patients. It is only a matter of comparative excellence and duties.