Health Technology Assessment (HTA) in a changing social and health care context

Health Technology Assessment (HTA) has been defined in different ways, nevertheless it can be described briefly as a multidisciplinary process of analysis dealing with evidence and context to inform decision making in health care.
For decades HTA and related fields, aimed to produce and encourage the use of scientific evidence to inform decision making, at all levels of the health care system, from policy making and management to clinical decision making [1,2].
Scientific evidence involved in the HTA process may refer to efficacy, effectiveness, safety, needs, appropriateness, efficiency, equity, acceptability and some other issues related to the effect of the introduction, use and diffusion of medical technologies on health and health care.

The evaluation, with formal rules, of the quality of available scientific information is an important step of the HTA process as are the skills required for literature searching. The source of scientific information should not be limited to clinical literature, but also exploit other areas of knowledge such as epidemiology, social sciences, economics, health services research among others [1]. The best method to be used in the HTA analysis process obviously depends on the uncertainties to be assessed. It could range from the synthesis and/or integration of scientific information to production of primary data. The latter is the option of choice when there is insufficient existing evidence or its quality is poor. The assessments often require a multidisciplinary and multi-method approach, the former, of course, must be chosen after translating the uncertainty into sound research questions.

As mentioned above, the product of the HTA process is information for decision making in health care. Potentially, at macro and meso level, HTA can facilitate health care and knowledge needs assessment, inform planning and coverage decisions, distribution and allocation of health care and scientific resources, health services purchasing or delivering and finally, decisions related to investment in health care programmes, technologies, services and public health practice. At clinical level, HTA and other activities from the "culture of evaluation" such as those from the Cochrane Collaboration and its systematic reviews to elucidate the efficacy of therapies, has given rise to important developments in this decade in many countries. Furthermore, evidence based clinical practice guidelines, appropriateness and efficiency studies (Cost effectiveness studies) among others are fostering the principles of HTA and evidence based medicine and becoming core concepts of undergraduate, postgraduate and continuing medical education.

HTA has evolved over time, from expert opinion, in the early days of its development, during the late seventies, to a global movement for scientific evidence; from the assessment of "big ticket" technologies to evidence based public health practices and services; from individual or small teams of researchers producing HTA to, increasingly, a collaborative research movement based on scientific networks such as those currently in Italy. HTA is always adapting its process of analysis and products to changing uncertainties and values in a changing health care and social context.

In coming years this evolution will continue, as change is the predictable variable for society at large and specifically for health care and health research. Changes in the understanding of patterns of disease and risk factors, in public expectations in relation to health care and science, changes in scientific knowledge and in its accessibility, changes in values and attitudes as information and communication technologies continue to cultivate globalization of knowledge.

HTA was born to help decision makers, and it will adapt to the next generation of decision makers, those specifically trained to effectively manage the new social

and health care challenges [3], whose professional values are likely to be organizational flexibility, sympathetic with talent management, accountability and transparency; they will probably be active members of the research culture, understanding evaluative research as an asset for organizations and society and, all in all, with a different style of decision making to that arising from the culture of authority where arbitrariness, paternalism and opacity is the expression of power.

HTA still faces challenges in impact and integration into practice. In fact some authors have argued that the biggest challenge for HTA [4] and evidence based medicine in general [5] is one of knowledge translation, ensuring that decision makers base their day to day decisions on the right principles and on the best current evidence. But it is recognized that knowledge from evidence is only one component of decision making processes. Different dimensions of knowledge from the context where the decision has to be taken, always influence the output of the decision, as do the values and attitudes concurrent with them, both personal and organizational. In relation to these facts, one of the unsolved questions is how HTA can contribute to minimize, in specific contexts, the unsound decisions that are taken day by day in health care.

HTA as field of evaluative research, must face the new challenges of health systems with new approaches. For the "impatient patient" phenomenon, it can offer tools for priority setting; for the continuing rise of non evidence based clinical practices guidelines, evaluation and disseminations of its quality. Probably HTA producers and users will need to modify the emphasis from technology assessment to public health policies and practices assessment and assessment of the impact of health care reforms in equity or even move forwards toward a more evidence based health care financing.

Other challenges in which HTA must play a role, are related to closing the gap between Health Care Policy and Scientific Policy, how to promote a closer interaction between health research and health systems and how to contribute to a culture of mutual learning. In this sense some HTA organizations and groups are playing a modest role [6] but still there is need for greater complicity and "activism" from others. Thank you for your initiatives and for this special issue on Health Technology Assessment.

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