

Based medicine indifference

Medicina baseada na indiferença

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ABSTRACT

Current Medicine aspires to the status of science, and the current state of this scientific art is called evidence-based medicine. The main pillars of this new medicine are critical analyzes of randomized, controlled trials, and these studies themselves. However, physicians must overcome several barriers in their daily practice to translate the evidence from these studies. Often doctors practice the opposite of what is recommended, based on indifference.

Key words: Evidence-Based Medicine; Endarterectomy; Angioplasty.

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RESUMO

A Medicina atual requer para si o estatuto de ciência, e o estado atual desta arte científica chama-se medicina baseada em evidência. Os principais pilares dessa nova Medicina são as análises críticas de estudos randomizados e controlados e esses estudos propriamente ditos. Entretanto, várias barreiras devem ser vencidas pelos médicos na tradução para sua prática diária das evidências desses estudos. Não raro, os médicos praticam o oposto do preconizado pelas evidências, baseando sua atividade na indiferença.

Palavras-chave: Medicina Baseada em Evidência; Endarterectomia; Angioplastia.

INTRODUCTION

Since its publication in 1992 in the prestigious Journal of the American Medical Association (JAMA)¹, evidence-based medicine (EBM) has become a true mantra, spoken, and repeated in the four corners of health professions.

It has also been used by insurance companies and other carriers to grant or deny coverage of treatments.

The practice of EBM in our midst, however, is not as evident.

Today's medicine requires for itself the statute of science, and the current state of this scientific art is called evidence-based medicine.

The finalization and publication of randomized controlled trials do not guarantee, however, the practice of EBM.

That is to say that, especially in our environment, the practice of medicine based on scientific evidence is not widespread; instead, the indifference to results from randomized trials is a common practice.

The reasons are many, and this article we will discuss some of them.

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EVIDENCE-BASED MEDICINE

EBM has its solid pillar in evidences from clinical research. At the top of evidences are systematic reviews of randomized controlled clinical trials, in addition to the assays themselves. A systematic review of cohort studies and case-control studies follows and almost at the bottom of the pyramid, report cases.

EBM disagrees with Le Breton, for whom "the specialist's opinion is Gospel to the layman". The opinion of the medical professional is the lowest degree of scientific evidence.

The practice of this new Medicine requires that the doctor not only search the specialized literature, but has the capacity to critically analyze the results.

The amount of medical publications, in all areas of Medicine, is immense and in continuous growth. It is impossible for any doctor to read everything that has been published in his area of expertise, much less to systematically analyze the publications. In our environment, doctors generally spend most of their time in the activity due to low remuneration for services rendered, which requires high load of work time. They devote fewer hours to studying and updating, which have to be fitted in their budgets.

In addition to the large number of scientific journals (more than 100,000), the quality and relevance of what is published varies greatly. The journals indexed in the most prestigious international databases by the scientific community are only about 10% of the total existing magazines and are responsible for over 90% of scientific papers considered most relevant.²

That in itself would be a great barrier to the practice of EBM. Conversely, access to publications is facilitated by the internet, in many cases, eliminates switching services between libraries in search for original articles. The sub-specialization of professionals also allows the restriction of areas of interest and therefore updating.

EBM has other limitations.³ The majority of randomized clinical trials is held in North America and Western Europe, cradle of technological advances in the health area. The findings and conclusions of studies in this population not always can be extended to the developing world.

Just evaluate some characteristics of clinical experience in less developed countries to understand the limitations of extrapolating their findings to poorer areas. Contrary to what occurs in the target population in the majority of these researches, diseases have late presentation in less-favored regions because of

difficulties accessing health services with consequent delay in diagnosis. In addition, a referral to reference services is difficult, the control of infection is reduced, and the follow-up of patients is poor compared to those in developed centers. In our environment, the practice of self-medication is overwhelming and patients have difficulties maintaining the proposed treatment often because of economic constraints.

None of these characteristics is taken into account in any of the randomized clinical trials.

The deployment of EBM in most third world institutions, as well as its acceptance by health care providers, does not happen naturally and the incorporation of new technologies is too slow or simply not viable.

The most worrisome scenario, however, occurs when all these barriers are overcome and EBM is still not practiced. Its example is the clash between two modes of treatment for severe carotid stenosis. EBM has demonstrated that symptomatic or asymptomatic stenosis above 60-70% should be treated by endarterectomy or angioplasty with stent placement. More than all other surgical techniques, these two modes of treatment have earned credits from numerous randomized controlled studies. Once established the criteria for nomination and dissemination of its practice, the comparison between the two modes of treatment became the center of attention. On the other hand, the scientific novelty of angioplasty, which does not require cuts and is apparently simpler to execute, although it is much more expensive. On the other, the endarterectomy surgical treatment, whose results were superior to those of angioplasty. The publication of the Carotid Revascularization Endarterectomy vs Stenting Trial (CREST)⁴ in a randomized and controlled study comparing angioplasty with carotid endarterectomy could have put an end to the questions. The two modalities are effective in the treatment of severe carotid stenosis, although the results of endarterectomy are superior regarding prevention of stroke, which is why the treatment is indicated. Contrary to popular thoughts before this study, carotid endarterectomy has even better results in octogenarians. Therefore, with the dissemination of EBM, the nomination of endarterectomy would increase and that for angioplasty would decrease. However, just the opposite occurred after the publication of the CREST study.

Scathing criticism to the evidence-based medicine is made by Grahame-Smith in the form of Socratic dialectic.⁵ The author draws attention to the excessive time that many doctors engaged in the search for

evidence getting away from the direct examination of patients, as well as the risk of the use of evidence-based medicine by managers in search of medicine based on cost-benefit analyses.

Dalvi⁶ draws attention to the limitations of EBM in the pediatric population. Because of logistical and ethical reasons, randomized controlled studies with children are much rarer. The inclusion and exclusion criteria generally differ from the scenario in the everyday work of doctors and also indicate the influence of human factors involved in research as surgeons, anesthetists, perfusionists, nurses, intensive care unit professionals, physiotherapists, etc., which may affect the results.

In a facetious article, Isaac and Fitzgerald⁷ propose seven alternatives to EBM. These would be medicines based on: eminence, which takes into account the experience of the doctor; vehemence and eloquence, based on convincing professional capacity; providence, which is based on religious belief; diffidence, when the professional guess the evidence; prevalence, with a defensive medicine practice; and confidence (“confidence”), when the doctor thinks he is above the evidences. According to the authors, the latter alternative would be restricted to surgeons.

I add an eighth to these seven options: medicine based on indifference.

Even if with sufficient knowledge to practice EBM, doctors' working conditions in developing countries and their attitude before scientific novelty, often leads them to ignore the recommendations of evidences, preferring to practice medicine based on indifference.

The ignorance of doctors about results of scientific studies can be countered with the dissemination of guidelines elaborated from the concepts of EBM. With regard to the indifference, the task will be even more challenging because it requires a change in attitudes.

CONCLUSIONS

There are many barriers to be overcome between the completion of scientific studies that characterize EBM, its publication, and application in the medical practice.

These challenges are even greater in developing countries, where doctors sometimes do not base their practices in evidences from randomized and controlled studies, while remaining indifferent to them.

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