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EDITORIAL

Challenges for Contemporary Medicine: Implementation of Evidence in Clinical Practice

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Contemporary medical practice has incorporated new diagnosis and treatment technologies, which, in turn, have contributed to the increase in the quality and expectancy of life in the population.[1] Journals in the health area provide a huge amount of information on these advances, which need to be carefully analyzed before being introduced into care practice, with the aim of improving patient care. Doctors, in their daily activities, deal with complex decisions and the reliability of scientific information is essential for clinical decision-making. New strategies are often presented as the solution to problems experienced in clinical practice and there is rarely a scientific method that corroborates this decision, which may be, in some cases, even more harmful than those commonly used.[2]

The interest of the industry, through research funding in order to possibly find non-existent benefits or those of minimal clinical impact, is a reality.[3] Designs aimed to emphatically demonstrate positive results of some strategy, with the aim of changing medical practice, often crash with a more detailed review, either in the validation, the impact or the applicability of the results. The need for methodologically appropriate studies are essential for changes to be incorporated, although studies with less stringent methods should continue to be produced as important generators of hypotheses.

The so-called "last paper syndrome" is an everyday fact and appears as a demonstration of the professional's constant updating. The growing number of publications[4] in several specialties and the difficulty to perform a critical review, at least of the most important articles, make it impossible for us to keep continually updated. The use of tools that, impartially and in a methodologically correct manner, analyze and synthesize the best evidence, is an attractive alternative to everyday clinical questions. The ACP Journal Club, Evidence Based Medicine, UptoDate and Cochrane are among the most relevant publications for this purpose.

Evidence-based Medicine can be defined as the sensible, explicit and judicious use of the best evidence when making decisions about individual care.[5] This model, disseminated by masters such as Gordon Guyatt, from McMaster University, has been incorporated into the guidelines of the main medical societies, in order to achieve greater clinical effectiveness in the proposed recommendations. Decisions made on evidence-based Medicine are able to provide improved care quality, reduce the waste of and better allocate resources, which may make the health care system fairer and more rational.

The main medical societies involved with guideline development, which represent the best practices, have played a key role in changing this paradigm.[6] Models for the writing of documents that deal with assistance care help in this construction, showing the authors the importance of the search method and analysis of publications for relevant information. Types of recommendation may vary, with a trend towards the increased use of GRADE,[7] a system that provides information on the level of evidence and strength of recommendation and are useful to guide us in making clinical decisions.

Keywords

Review Literature as Topic; Evidence-Based Practice.

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What emerges is the question of how to make the acquired knowledge turn into an effective action? The so-called "knowledge translation" is a permanent difficulty in many countries and several strategies are implemented to overcome this obstacle.[8] The need for access to information is critical in this process and, therefore, computers, tablets and smartphones should have access to the major academic databases of evidence. The aspect of the medical attitude seems to be the great challenge and this can be influenced by false perceptions or, even by the preference of maintaining behaviors that do not change the cognitive comfort, that is, the repeating of known standards. The introduction, still during the graduation course, of a learning model in which the decision-making is evaluated at each step, should certainly result in a new generation of professionals more involved with these concepts.

The campaign created by the American Board of Internal Medicine, called "Choosing Wisely", aims to encourage the dialogue between patients and physicians about the proposed procedures, so that the best choices can be made in patient care.[9] It has been suggested to the societies that their members should create a list of five recommendations, used with relative frequency, that should be avoided. This was one of the mechanisms adopted for the dissemination of the concept that, in certain situations, "less is more". With the participation of several international societies, the Brazilian Society of Cardiology was the pioneer among the Brazilians societies to develop its own guidance model.

The American Heart Association (AHA), in another accomplishment, through the "Get with Guidelines" campaign, has developed an excellent job in publicizing and supporting the implementation of good practices.[10] With a vast number of available guidelines on the Internet, the AHA has helped to improve care processes and clinical outcomes in different countries.

The change in medical paradigms is not a challenge that must be minimized. For that purpose, within this process of professional guidance, the inclusion not only of the societies but also of the media, has significantly increased information disclosure in recent years. Publications on "overuse", "overdiagnosis" and "overtreatment" have exponentially increased in PubMed, and congresses are organized on the topic, reinforcing the growing concern on the subject.[11] Oncology, with questions about the need for broad screening of high-prevalence cancers, has been the specialty with the highest number of publication on overuse,[12] but cardiology[13] has also participated, by demonstrating the incorporation of diagnostic or therapeutic strategies that add little or no value to patient care.

We are living in an era of changes in care practices and public health. The evolution to the coherent model of care centered on the patient will be the patients' actual participation in the development of their care strategy, with the consolidation of the dialogue between patients and health professionals. This challenge involves questioning how decision-making is performed, because only by changing the way we think, we will be able to change the way we act.

References

1. Tazkarji B, Lam R, Lee S, Meiyappan S. Approach to preventive care in the elderly. Can Fam Physician. 2016;62(9):717-21.
2. Sardar P, Nairooz R, Chatterjee S, Wetterslev J, Ghosh J, Aronow WS. Meta-analysis of risk of stroke or transient ischemic attack with dabigatran for atrial fibrillation ablation. Am J Cardiol. 2014;113(7):1173-7.
3. Potthast R, Vervölgyi V, McGauran N, Kerekes MF, Wieseler B, Kaiser T. Impact of inclusion of industry trial results registries as an information source for systematic reviews. PLoS One. 2014; 9(4):e92067.
4. Bowen A, Casadevall A. Increasing disparities between resource inputs and outcomes, as measured by certain health deliverables, in biomedical research. Proc Natl Acad Sci U S A. 2015;112(36):11335-40.
5. Sackett DL, Richardson WS, Rosemberg WS, Haynes BR. Evidence-based medicine: how to practice and teach. New York: Churchill Livingstone; 1997.
6. Schünemann HJ, Cook D, Guyatt G; American College of Chest Physicians. Methodology for antithrombotic and thrombolytic therapy guideline development: American College of Chest Physicians Evidence-based Clinical Practice Guidelines (8th Edition). Chest. 2008;133(6 Suppl):113S-22S. Erratum in: Chest. 2008;134(2):473.
7. Alonso-Coello P, Oxman AD, Moberg J, Brignardello-Petersen R, Akl EA, Davoli M, et al; GRADE Working Group. GRADE Evidence to Decision (EtD) frameworks: a systematic and transparent approach to making well informed healthcare choices. 2: Clinical practice guidelines. BMJ. 2016;353:i2089.
8. McGowan J, Muratov S, Tsepke A, Issina A, Slawecki E, Lang ES. Clinical practice guidelines were adapted and implemented meeting country-specific requirements--the example of Kazakhstan. J Clin Epidemiol. 2016;69:8-15.

9. Baron RJ, Wolfson D. Advancing medical professionalism and the choosing wisely campaign. JAMA Intern Med. 2015;175(3):464-5.

10. Starr JB, Becker KJ, Tirschwell DL. Weekend discharge and stroke quality of care: get with the guidelines-stroke data from a comprehensive stroke center. J Stroke Cerebrovasc Dis. 2016 Sep 2. [Epub ahead of print].

11. Morgan DJ, Dhruva SS, Wright SM, Korenstein D. 2016 Update on medical overuse: a systematic review. JAMA Intern Med. 2016 Sep 19. [Epub ahead of print].

12. Beckmann K, Duffy SW, Lynch J, Hiller J, Farshid G, Roder D. Estimates of over-diagnosis of breast cancer due to population-based mammography screening in South Australia after adjustment for lead time effects. J Med Screen. 2015 Sep;22(3):127-35.

13. Skinner TR, Scott IA, Martin JH. Diagnostic errors in older patients: a systematic review of incidence and potential causes in seven prevalent diseases. Int J Gen Med. 2016;9:137-46.