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Implementation and barriers of high blood pressure guidelines and standards

Implementación y obstáculos de las directrices y normas sobre hipertensión arterial

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Palabras clave:
Hipertensión arterial, guías de práctica clínica (GPC), implementación, barreras.

ABSTRACT

The rapid evolution in medical knowledge, as well as the introduction of Evidence-Based Medicine, have highlighted a need for documents which facilitate acquiring the best information for the benefit of the patient. This has led to the development of medical guidelines in practically all specialties. In the case of high blood pressure (HBP) there are several guidelines developed by diverse Cardiology Societies throughout the world, each of them with different definitions for «normal» values for blood pressure, as well as differences in both management and treatment strategies. Furthermore, guidelines are updated periodically, which increases complexity for the physician to keep up to date. Amongst the barriers which limit physician adherence to the guidelines, are the lack of interest, inadequate medical preparation, excess of information, reliability, or preferences. Physician preference may favor guidelines developed within their country of practice or internationally; however, whichever the preference may be, evidence indicates that adherence to guidelines is generally low. In this review, we recapitulate the evidence on guideline adherence and its potential causes.

RESUMEN

La rápida evolución de los conocimientos médicos, así como la introducción de la Medicina Basada en la Evidencia, han puesto de manifiesto la necesidad de disponer de documentos que faciliten la adquisición de la mejor información en beneficio del paciente. Esto ha llevado al desarrollo de guías médicas en prácticamente todas las especialidades. En el caso de la hipertensión arterial (HTA), existen varias guías desarrolladas por diversas Sociedades de Cardiología de todo el mundo, cada una de ellas con diferentes definiciones de los valores «normales» de la presión arterial, así como diferencias tanto en el manejo como en las estrategias de tratamiento. Además, las directrices se actualizan periódicamente, lo que aumenta la complejidad para que el médico se mantenga al día. Entre las barreras que limitan la adhesión del médico a las directrices, se encuentran la falta de interés, la preparación médica inadecuada, el exceso de información, la fiabilidad o las preferencias. La preferencia de los médicos puede favorecer las directrices desarrolladas dentro de su país de práctica o a nivel internacional; sin embargo, sea cual sea la preferencia, la evidencia indica que la adherencia a las directrices es generalmente baja. En esta revisión, recapitulamos la evidencia sobre la adherencia a las guías y sus posibles causas.

INTRODUCTION

Clinical Practice Guidelines (CPGs) are instruments which aim to facilitate physician practices by presenting evidence of the best scientific quality, obtained in extensive literature reviews carried out by experts in the field. Despite presenting evidence which supports the physician in making clinical decisions, guidelines are also helpful in generating health care policies, standardizing diagnosis, and treatment, particularly at the institutional level. In addition, guidelines present pooled points of view by shared by a group of experts in the field; this may help physicians to make decisions beyond their own clinical experience with more updated and comprehensive overviews. This approach may lead to decisions which are attached to the best clinical practice standards.

CPGs contribute to the distribution of the most updated medical knowledge.

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This is relevant since information obtained primarily from textbooks, noticeably in terms of treatment or new diagnostic techniques, are not necessarily updated. CPGs play a significant role in clinical practice by presenting the most updated evidence available. Even though not all recommendations provided by CPGs are based on evidence from randomized double-blind placebo-controlled studies, CPGs also summarize information which shows aspects that may be debatable, depending on the level and quality of evidence, and very useful recommendations that discourage implementing a treatment or procedure. Another aspect of CPGs, which is not prominently mentioned in the literature, is that the correct application of a therapeutic measure taken from CPGs is the better protection against medical-legal claims. On the other hand, the origin of CPG must be carefully evaluated, the sources and references need to be analyzed, and that they present findings from all included articles with scientific accuracy.[1]

Although here is an agreement on the adequate use of CPGs, the physician usually has problems in selecting which is the most useful, given the large number of available CPGs. In Mexico, for example, there are the CENETEC Institutional Guides[2] enforced for all public sector institutions, the Official Mexican Norm project,[3] the Mexican Institute of Social Security (IMSS) algorithms,[4] just to name a few. On the other hand, there are physicians who prefer to use foreign CPGs, usually European, Latin American, American or World Health Organization (WHO) CPGs[5-8] with important differences in terms of the values to classify high blood pressure (HBP), as well as hypertension stages. These differences usually complicate the adequate selection of guidelines by physicians for clinical decision making. The large number of CPGs regarding HBP, makes it difficult for the physician to select the most useful. However, the point is not only to select the most appropriate CPG, but also to identify the precise application and monitoring of the recommendations for decision making.

The mere fulfillment of CPG recommendations is not enough. Adequate use of CPGs must cover four fundamental aspects: **development, distribution, implementation and evaluation**. There are multiple barriers to these aspects, so that a CPG is not only read but correctly applied. In an analysis performed by Dr. Uchmanowicz,[9] the author identifies possible barriers which can be conditioned not only by the physician, but also by the institutions and the patients themselves. Physicians may do their job correctly, following the best evidence; however, if the patient does not comply with what is recommended, evidence-based interventions will not work correctly. Barriers attributable to healthcare personnel include misinterpretation of CPGs and poor skills, lack of knowledge about CPGs, bad attitudes, lack of motivation, as well as not believing or not being convinced of the usefulness of a given guide.[9] Regarding the CPG itself barriers poor quality of evidence, little relevance or applicability for different health professionals, complex recommendations which are too confusing or that contain too much information. Regarding aspects of the organization, barriers are excessive workload as well as the lack of appropriate leadership who motivates to follow the CPG. Finally for the patient barriers include poor understanding of the indications, lack of interest and non-adherence to treatment. External barriers such as poor health policies, or lack of supervision can also be relevant.

However, barriers for implementation of CPGs could be overcome by developing short, user-friendly CPGs, with reduced complexity, and which use tools that facilitate clinical decision making. Additional measures include training healthcare personnel in the interpretation of CPGs, relying on the opinion of leaders and experts, and promote the dissemination of CPGs. In Mexico, Gutiérrez-Alba et al studied the behavior regarding adherence to and rejection of CPGs by Physicians in the Healthcare Sector, the analysis showed that the main barriers to following CPGs by physicians were their attitude, lack of commitment, inertia and not overcoming obstacles.[10] The main institutional barriers included the lack of incentives, insufficient time to consult and apply the CPGs, little access to CPG consultation, and lack of effective leadership. We can also

complement all this with the lack of continuing medical education programs. Differences in attitude to CPGs were observed according to age, where older physicians are the most resistant to change, while residents and younger physicians are the most eager for new information. Interestingly, evidence from other countries practically identify similar which include attitude, misinterpretation of the guidelines, lack of awareness and inertia to continue doing the things the same way by physicians.[11,12] In the Mexican context, other investigations showed that about 50% of physicians are not interested in CPGs and the most often used is the Official Mexican Norm.[13,14]

In conclusion, evidence-based medicine is essential for good clinical practice and should always be carried out with the good judgment by the physician with correct interpretation of the available information. CPGs are the link between physicians and the best scientific evidence, made by experts in the field. The fast advances of knowledge in medicine, the development of new drugs, procedures and technologies, forces CPGs to be continuously updated, which makes it more difficult for the physician to follow and stay up to date. It is precisely at this point, where medical societies, associations, and government leaderships, must do their best to promote continuing medical education, and ensure the best care for our patients for our goal: to give patients years of life with quality.

REFERENCES

1. Gómez Doblas JJ, Rodríguez-Padial L. Implementación de las guías de práctica clínica: deseo o realidad. Algoritmo de decisión. Clin Investig Arterioscler. 2021; 33 Suppl 1: 33-39. Disponible en: https://doi.org/10.1016/j.arteri.2021.03.001
2. Promoción, prevención, diagnóstico y tratamiento de la hipertensión arterial en el primer nivel de atención – CATÁLOGO MAESTRO n.d. [accessed March 29, 2022] Disponible en: https://cenetec-difusion.com/gpc-sns/?p=985
3. DOF - Diario Oficial de la Federación n.d. [accessed March 29, 2022] Disponible en: https://www.dof.gob.mx/nota_detalle.php?codigo=5480159&fecha=19/04/2017
4. Hipertensión arterial n.d. [accessed March 29, 2022] Disponible en: http://www.imss.gob.mx/salud-en-linea/hipertension-arterial
5. Williams B, Mancia G, Spiering W, Agabiti Rosei E, Azizi M, Burnier M et al. 2018 ESC/ESH Guidelines for the management of arterial hypertension. Eur Heart J. 2018; 39 (33): 3021-3104. doi: 10.1093/eurheartj/ehy339.
6. Task Force of the Latin American Society of Hypertension. Guidelines on the management of arterial hypertension and related comorbidities in Latin America. J Hypertens. 2017; 35 (8): 1529-1545. doi: 10.1097/HJH.0000000000001418.
7. Guideline for the pharmacological treatment of hypertension in adults [Internet]. Geneva: World Health Organization; 2021. [Accessed March 29, 2022] Available in: https://www.who.int/publications-detail-redirect/9789240033986
8. New Guidance on Blood Pressure Management in Low-Risk Adults with Stage 1 Hypertension. American College of Cardiology n.d. [Accessed March 29, 2022] Avaialable in: https://www.acc.org/latest-in-cardiology/articles/2021/06/21/13/05/http%3a%2f%2fwww.acc.org%2flatest-in-cardiology%2farticles%2f2021%2f06%2f21%2f13%2f05%2fnew-guidance-on-bp-management-in-low-risk-adults-with-stage-1-htn
9. Uchmanowicz I, Hoes A, Perk J, McKee G, Svavarsdóttir MH, Czerwinska-Jelonkiewicz K et al. Optimising implementation of European guidelines on cardiovascular disease prevention in clinical practice: what is needed? Eur J Prev Cardiol. 2020: 2047487320926776. doi: 10.1177/2047487320926776.
10. Gutiérrez-Alba G, González-Block MA, Reyes-Morales H. Desafíos en la implantación de guías de práctica clínica en instituciones públicas de México: estudio de casos múltiple. Salud pública Mex. 2015; 57 (6): 547-554.
11. Lugtenberg M, Zegers-van Schaick JM, Westert GP, Burgers JS. Why don't physicians adhere to guideline recommendations in practice? An analysis of barriers among Dutch general practitioners. Implement Sci. 2009; 4: 54. doi: 10.1186/1748-5908-4-54.
12. Francke AL, Smit MC, de Veer AJ, Mistiaen P. Factors influencing the implementation of clinical guidelines for health care professionals: a systematic meta-review. BMC Med Inform Decis Mak. 2008; 8: 38. doi: 10.1186/1472-6947-8-38.
13. Salud S de. Comité Nacional de Guías de Práctica Clínica (CNGPC). gob.mx n.d. [Accessed March 29, 2022] Disponible en: http://www.gob.mx/salud/acciones-y-programas/comite-nacional-de-guias-de-practica-clinica-cngpc
14. Poblano-Verástegui O, Vieyra-Romero WI, Galván-García AF, Fernández-Elorriaga M, Rodríguez-Martínez AI, Saturno-Hernández PJ. Quality and compliance with Clinical Practice Guidelines of Chronic Noncommunicable Diseases in primary care. Salud Publica Mex. 2017; 59: 165-175. Disponible en: https://doi.org/10.21149/8285

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