

Implementation of clinical guidelines: a knowledge translation challenge

Implementação de diretrizes clínicas: um desafio de tradução do conhecimento

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This commentary provides insights on the paper entitled “Implementing clinical guidelines: a need to follow recommendations based on the best evidence available”. It is addressed not only to the authors, but also to the academic community in general, managers and workers of health systems and services, and members of civil society interested in the themes related to the formulation and implementation of clinical practice guidelines.

I would like to thank the editors of the Brazilian Journal of Epidemiology for the opportunity to discuss the issue of implementing clinical guidelines. I also congratulate the authors for shedding some light on this topic, which is a pressing issue for overcoming the challenges of improving the performance of health systems worldwide, particularly those with universal coverage.

Indeed, as explained by the authors, there is a global consensus on the utility/need for scientific knowledge, generally identified as “research results”, which should be used systematically and transparently to improve health systems’ performance, especially in terms of effectiveness and quality of services. In this context, quality standards obtained in a health system depend on the dissemination of clinical practice based on the best evidence available. In this context, clinical guidelines play an important role by providing explicit and well-informed recommendations that can be known and used as a support to clinical decision-making, sharing this decision with the patient.

The first preliminary point I would like to address is conceptual. The World Health Organization (WHO) considers evidence-informed clinical practice guidelines as a set of recommendations to support informed decision-making on the desirability of carrying out specific interventions at clinical or public health level, since these guidelines provide a basis for selecting and prioritizing, among a set of possible interventions, the most appropriate¹.

The term “clinical guideline” is often interchanged with “protocol”, which corresponds to a normative meaning that generally contains prescriptive algorithms and often

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expresses the function of regulatory activity in health systems. In fact, there are different types of guidelines, so for this discussion we will adopt the meaning of “guidelines” as decision support documents at different levels of health system, which adopt systematic and transparent methods to incorporate and articulate scientific evidence with other elements considered in the formulation of recommendations.

The second preliminary question is related to the premise that “evidence” and “decision-making” are different things. The recognition of the need/utility to produce and implement recommendations based on the best available evidence is insufficient for achieving effective and desirable changes at individual, organizational and service delivery levels in health systems.

These elements lead us to consider that the incorporation of evidence as a decision-making subsidy requires the adoption of mechanisms, a real Knowledge Translation (KT) challenge. As well presented by the authors, KT is a dynamic and iterative process that includes the synthesis, dissemination, exchange and application of knowledge in an ethical way to improve health, provide more effective health products and services, and strengthen the health system².

This is a complex problem, inherent to every public health policy, especially because it is fundamentally an implementation problem, which requires changes in individual behaviour, institutional processes and even eventually reaching the social level.

Implementation also requires active processes, planned and systematically developed, to modify knowledge, skills and practices by health care providers and patients, and at the same time to achieve relevant changes in health system’s performance. Once again, it is a complex implementation problem, involving elements of context, barriers and facilitators, varied strategies, as well as focusing on regulatory and governance arrangements and service delivery in health systems.

The authors presented the effective implementation of clinical practice guidelines informed by evidence as a central issue for health systems to achieve a better performance. I totally agree with that, so my contribution to the debate will be to discuss some aspects of the relevant “steps” to address implementation effectively.

The first part is to investigate how scientific evidence on the effects of interventions can be incorporated systematically and transparently into the formulation of recommendations. Next, it is necessary to find out how to match, also in a systematic and transparent way, this evidence on effects with the evidence on implementation contexts; and, finally, it is necessary that caregivers comply with recommendations exactly where they act.

This is certainly the most complicated part, but in any case, in addition to the intention to use evidence, it is necessary to adopt effective mechanisms for the translation, integration and application of knowledge, in the context of implementing these recommendations, so that the effects on the quality of care and on health system’s performance are obtained.

The process adopted in the formulation of clinical practice guidelines is the starting point for improving the quality of care available to the population, as it supports the reduction of unreasonable variability of the conduits for prevention, diagnosis, treatment

and rehabilitation of health, which are based on the best evidence available, in a systematic and transparent way. An issue prior to implementation, therefore, concerns the method of formulating clinical practice guidelines and whether it is possible to evaluate them and recognize whether they are based on the best available evidence. In other terms, should a guide that did not incorporate evidence systematically and transparently be implemented? Or should we discard it and go back to the drawing board?

That question must be taken very seriously, as well as its consequences, because the dissemination of interventions that the judgment of its potential effects is incomplete can represent a risk to the population in the same way as it can be a benefit. It also can represent waste of health system's resources. Therefore, it is mandatory to carry out a comprehensive assessment on uncertainty of the effects (benefits and risks, mainly) arising from its recommendations. The only way to do this is to assess systematically the quality of the guidelines adopted in health system and any documents that fail to do so should be reviewed.

On the other hand, well formulated, high-quality guidelines will not produce results unless they are effectively implemented. In fact, implementation can be seen as a result, which depends on a set of interventions, that can consider existing barriers at different levels in the implementation context.

The topic of the implementation of clinical practice guidelines has attracted much international interest, especially on barriers and strategies for better results. Overviews of systematic reviews that investigated factors contributing to (un)successful implementation have pointed out several factors related to:

1. clinical practice guidelines, such as document format and accessibility, ease of application, divergent recommendations among guidelines, and lack of compliance at local settings;
2. health workers to whom the recommendations are addressed, such as lack of medical knowledge or disagreement with recommendations, conservative attitude, prior professional experience and legal concerns;
3. patients, such as attitudes or behaviour ; organizational setting, such as lack of institutional support from colleagues or supervisors, lack of staff and time³⁻⁵.

In addition, the set of identified implementation strategies can also be stratified according to the interventions target, including:

1. professional-focused interventions, such as educational strategies, dissemination strategies, computerized decision-making systems, auditing and feedback;
2. patient-focused interventions, such as opinion leaders, media outreach;
3. organization-focused interventions, such as changes in the environment and/or organizational norms;
4. a range of multifaceted interventions that combine strategies at different levels³⁻⁵.

Studies recognize that the "balance" between interventions (strategies) and context (barriers) is critical to determine the success of the implementation.

Any proposal for changes in clinical practice through implementing of evidence-informed guidelines needs to consider the process as an exercise in organizational, political, and even social arrangements. It must be endowed with adaptive capacity in different contexts and, especially, strict monitoring. It seems to be an additional challenge that the inclusion of these aspects occurs from the stage of formulating clinical practice guidelines so that they can be explicitly included in the documents to allow adjustment and adaptation to the local level of implementation.

Thus, platforms that support the implementation of evidence-informed clinical practice guidelines need to structure a complete Knowledge Translation process involving mechanisms at different levels to address each step. The formulation and implementation of guidelines represent a process to be improved and explored as an indispensable resource for the improvement of health systems performance.

REFERENCES

1. World Health Organization. WHO handbook for guideline development [Internet]. 2nd ed. World Health Organization; 2014 [cited Mar 25, 2018]. Available at: <http://apps.who.int/medicinedocs/documents/s22083en/s22083en.pdf>
2. Straus SE, Tetroe J, Graham I. Defining knowledge translation. *CMAJ* [Internet]. 2009 [cited Apr 4, 2018]; 181(3-4): 165-8. Available at: <http://www.cmaj.ca/content/181/3-4/165.short>
3. Fitzgerald A, Lethaby A, Cikalo M, Glanville J, Wood H. Review of Systematic Reviews Exploring the Implementation/Uptake of Guidelines. York Health Economics Consortium [Internet]. York: University of York; 2014 [cited Mar 25, 2018]. Available at: <https://www.nice.org.uk/guidance/ph56/evidence/evidence-review-2-431762366>
4. Prior M, Guerin M, Grimmer-Somers K. The effectiveness of clinical guideline implementation strategies—a synthesis of systematic review findings. *J Eval Clin Pract* [Internet]. 2008 Oct [cited Mar 25, 2018]; 14(5): 888-97. Available at: <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1365-2753.2008.01014.x>
<https://doi.org/10.1111/j.1365-2753.2008.01014.x>
5. Lau R, Stevenson F, Ong BN, Dziedzic K, Treweek S, Eldridge S, et al. Achieving change in primary care—causes of the evidence to practice gap: systematic reviews of reviews. *Implement Sci* [Internet]. 2016 Mar 22 [cited Mar 25, 2018]; 11: 40. Available at: <https://implementationscience.biomedcentral.com/articles/10.1186/s13012-016-0396-4>. <https://doi.org/10.1186/s13012-016-0396-4>

Received on: 04/13/2018

Accepted on: 04/13/2018

