

Clinical practice guidelines: The dangerous pitfalls of avoiding methodological rigor

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In the past two decades, clinical guidelines have become practical tools that assist clinicians, policy makers and insurers make informed decisions about the clinical and administrative management of patients. The popularity of these tools has increased so rapidly that clinicians now face the dilemma of having to choose from a plethora of documents of varying quality that were developed by various scientific, professional, political and commercial parties. In this context, a key challenge for the users of clinical practice guidelines is to determine whether their recommendations are valid, useful, based on the best available evidence and developed with sound scientific methodology.

In this issue of the *Journal*, Brouwers and Charette explore these concerns and compare the quality of two well-known chiropractic clinical practice guidelines: the Canadian Chiropractic Association (CCA) Clinical Guidelines for Chiropractic Practice in Canada and the Council on Chiropractic Practice (CCP) Clinical Practice Guidelines-Vertebral Subluxation in Chiropractic Practice.¹ Brouwers and Charette conclude that although the Canadian Chiropractic Association's guidelines were rated more favorably, both documents suffer from critical flaws, namely the unsatisfactory identification and use of evidence, lack of stakeholder involvement, and lack of evidence of editorial independence. The impact of these flaws is illustrated by the conflicting and often vague recommendations made in the guidelines on some key aspects of patient care. For example, the CCA guidelines suggest that repeat radiography (pre- and post-adjustment) may be inappropriate, whereas the CCP guidelines found supporting evidence to justify its practice. This discrepancy creates confusion for users of the guidelines and

ultimately undermines the credibility of the guideline process.

Using a standardized approach to critically appraise the guidelines,² Brouwers and Charette report that the CCA and CCP guidelines, respectively, achieved only 39% and 22% of the possible total score on the dimension of *identification and use of evidence*; 46% and 56% on the dimension of *stakeholder involvement*, and both documents received scores of "zero" of the possible total score for *editorial independence*. These low ratings are extremely worrisome because these are arguably the most critical components of the guideline development process. These ratings reflect negatively on the validity and applicability of recommendations contained in the guidelines.³

It is important to note, however, that observations such as these are not limited to chiropractic guidelines and have also been made by researchers reviewing medical guidelines. In a recent article in *The Lancet*, Grilli et al. assessed the quality of practice guidelines produced by specialty medical societies. These authors concluded that, "If practice guidelines are to be widely accepted as an improvement tool for quality, greater attention needs to be paid to the methods used to develop them".³ Grilli et al. also identified *lack of multidisciplinary representation* as a major problem in the reviewed medical guidelines. They reported that 75% of the specialty guideline panels did not include a broad range of disciplines. These shortcomings are reasons for concern because guidelines developed without the input of a multidisciplinary panel and other stakeholders are liable to make recommendations that are biased by professional views and priorities.

Another important challenge in developing valid and clinically useful guideline is *editorial independence*. Commercial, professional and patient-advocacy groups are increasingly shaping the current health care landscape in North America. While this has created new and exciting opportunities for clinical practice and research, it has simultaneously given rise to new challenges. Guidelines

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panels must have the ability to fully and freely make informed recommendations that are based on rigorous methodology without the undue influence of invested third parties. The risks associated with diminished editorial independence are enormous. First, it communicates a lack of clarity about the purpose of developing the guidelines and suggests that other agendas may have taken priority over the improvement of patient care. Second, it seriously undermines the scientific process by potentially bruising pre-established methodologies and practices. And finally, it fosters the emergence of distrust and skepticism with regard to evidence-based health care.

The principles guiding the development of practice guidelines dictate that their recommendations be "systematically developed statements" derived from rigorous and transparent methodology.⁴ Does the report by Brouwers and Charette suggest that the CCA and CCP have failed to translate those principles into reality? To a large extent, the answer is yes. Like other research endeavors, the methodology used to developing guidelines is not perfect. However, those involved in this process must take steps to minimize the influence of biases. If the purpose of guidelines is truly to synthesize knowledge and improve patient care, then there is little excuse for not conducting broad systematic literature searches or critically appraising the available evidence using accepted methodology.^{5,6} Above all, guidelines must give precedence to scientific evidence over opinions. Chiropractors have made major contributions to the development of rigorous clinical practice guidelines in the past and these models must be used to update our current documents.^{7,8}

The purpose of clinical practice guidelines is to improve the quality of patient care by providing clinicians, policy makers and insurers with recommendations based on an integrated summary of the best scientific evidence and clinical expertise. Our challenge is to strive to achieve this goal by systematically addressing the deficiencies outlined by Brouwers and Charette when revising or developing new clinical practice guidelines. Ultimately this investment will promote the highest standard of care for chiropractic patients.

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