Clinical Practice Guidelines

What Are They and How Should They Be Disseminated?

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KEYWORDS

• Practice guidelines • Evidence-based medicine • Practice variation • Guideline dissemination

KEY POINTS

- Clinical practice guidelines use rigorous methods to find, evaluate, and summarize the literature into a series of points that should help guide clinicians in their management of patients.
- Clinicians are often reluctant to implement the recommendations of practice guidelines and the reasons for this vary with the topic and with the practice context.
- Multiple strategies to overcome the barriers preventing implementation should be used together and be selected from the particular characteristics of the target clinician population.

The evidence-based practice movement that started in the 1980s had at its foundation the idea that outcomes would improve if patients were managed using principles developed from medical knowledge accumulated from a body of methodologically sound clinical research. Clinical practice guidelines (CPGs) sought to summarize this medical evidence into general management pathways that clinicians could use to provide patients with the best care possible. However, despite this seemingly laudable objective, CPGs in general have had, in most instances, a modest impact on day-to-day practice. In some cases CPGs have been essentially ignored by most clinicians. The reasons for the failure of CPGs to influence practice are varied but, before examining these, it is important to understand how CPGs are developed (although these methods continue to evolve) and what they represent.

In hand surgery, CPGs have been developed in recent years by the American Academy of Orthopedic Surgeons (AAOS) for the treatment of distal radius fractures,[1] the diagnosis of carpal tunnel syndrome (CTS),[2] and the treatment of CTS.[3] The process for guideline development follows a prescribed series of steps, the goal of which is to produce recommendations that are based on a systematic review of the literature. The CPG Workgroup consists of a panel of medical experts from a variety of clinical backgrounds pertinent to the condition under consideration. This characteristic of the CPG development approach is important and often overlooked. Having the participation of multiple stakeholders minimizes the risk of the recommendations being biased by a specific point of view associated with a particular clinical specialty.

Once the workgroup has been established, the next step is to have the members produce simulated recommendations, that reflect the areas that are thought to be important to developing a useful guideline and help to define the scope of the final document. These simulated recommendations are then used to search the relevant literature. In the case of CPGs produced by AAOS, this

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literature search is performed by a team of staff members with an epidemiologic background, together with a medical librarian. Workgroup members can also suggest the inclusion of articles that may not be included in the literature search. In general, the focus is on using the literature with the highest level of evidence. If there seems to be a reasonable body of evidence at level II or higher, level III literature is not included unless there is a large volume of potentially important information with this level of evidence. This approach is consistent with the goal of basing the final recommendations on the best possible evidence. The outcomes in the included studies are usually focused on patient-derived measures, consistent with the concept that patient-focused outcomes are the most important.

The next step is to summarize the literature for the workgroup. This is also a task that is usually performed by trained epidemiologists. In the case of the AAOS CPG on CTS treatment, a team of 6 individuals each reviewed 94 articles that were eventually included from an initial pool of more than 300 publications. The data from each article were extracted by each of these 6 individuals and then subjected to statistical analysis appropriate to the measures being evaluated. If possible, comparisons of treatments are summarized, although in many instances the power of the studies precludes this approach. The objective of this phase of CPG development is to analyze the best available data so that a recommendation can be made.

Once the available evidence regarding a recommendation has been reviewed, a consensus of the workgroup members is then sought using nominal group techniques. The use of nominal group methods allows a consensus to be obtained according to preset rules that require secret voting. A single persuasive group member cannot unduly influence the consensus. If there is agreement on the recommendation, it is accepted without further discussion. If there is disagreement among the workgroup members, further discussion is undertaken before a second vote is taken. If a consensus is not reached after a second vote, the recommendation is rejected. The strength of the recommendation, once established, is based on the quality of the evidence and this is expressed together with the recommendation.

WHY DO PHYSICIANS NOT USE CPGS?

Implementation of CPGs by clinicians may be poorer than expected despite the methodologically rigorous process in the CPG development. For example, the Scandinavian Guidelines for the Initial management of Minimal, Mild and Moderate Head Injuries were developed to help physicians caring for these patients and to provide them with safe care that was also cost-effective. The guideline sought to help decision making for patients requiring hospital admission and CT scanning, which are the main drivers of cost. In a sample of more than 500 patients, physicians at their institution complied with the guidelines in only 50% of cases.[4] McGlynn and colleagues[5] reported that overall adherence to evidence-based CPGs published between1998 and 2000 averaged 55%.

The process for developing most CPGs is fully transparent, prospectively planned, and methodologically rigorous. The only recommendations that are adopted are those based solely on the literature and that are supported by a consensus of experts from a broad spectrum of clinical backgrounds. Why then do CPGs sometimes fail to gain traction among clinicians? The reasons are varied and well established. The factors behind the failure of CPGs to influence clinical practice have been studied extensively and have been understood to a greater or lesser extent for almost as long as CPGs have been available. These factors were summarized by Cabana and colleagues[6] in an extensive review of studies of barriers to the implementation of CPGs. These investigators classified the barriers to implementation into 7 broad categories.

Lack of Awareness

Although this varied widely among the studies examined, a lack of awareness was identified to be as high as 84%. In around 80% of the studies, at least 10% of the respondents were unaware of the guidelines.

Lack of Familiarity

These studies tended to indicate that, although there was awareness of the guidelines, familiarity with their content was lacking in a large proportion (a median of 56% of respondents). Overall lack of familiarity was more common than lack of awareness.

Lack of Agreement

The percentage of respondents to the various studies who indicated a lack of agreement with the guidelines was highly variable and seemed to be at least partly linked to the nature of the guideline's recommendation. For example, 91% of respondents to a survey evaluating a guideline published by the American Academy of Pediatrics related to indications for the use of ribavirin