Review: Clinical practice guidelines may not improve patient outcomes in primary care


Objective
To determine whether clinical practice guidelines improve patient outcomes when used in primary care settings.

Data sources
Trials were identified by using the MEDLINE, Healthplan, CINAHL, and FAMLI databases (1980 to 1995) with the terms clinical practice guidelines, primary care, clinical care, interventions, randomized controlled trial, and effectiveness. Bibliographies of relevant papers were also searched.

Study selection
Studies were selected if they examined the effects of clinical practice guidelines in primary care settings in patients with diagnosed medical conditions and assessed clinical outcomes. Randomized and quasi-randomized studies were included.

Main results
91 studies were identified. 35 evaluated clinical care, and 13 met the inclusion criteria of reported patient outcomes. 6 of the 13 studies were on hypertension, 2 were on smoking cessation, 1 was on asthma, 1 was on diabetes mellitus, and 3 were on the effect of guidelines on multiple chronic medical conditions (e.g., obesity and renal disease). 4 studies evaluated nationally developed guidelines (1 of which showed improvements), and 9 examined locally developed guidelines (4 of which showed improvements). Overall, 5 of the 13 studies showed improvements in patient outcomes; however, no study showed improvements for all patient outcomes measured. 6 studies used computerized automated reminder systems prompting physicians during patient visits. The remaining studies used physician recall about clinical practice guidelines presented in small-group education sessions. 4 trials were small or did not supply numbers of patients studied. 5 of the 9 larger trials (> 40 patients each) showed improvements in some of the clinical outcomes. None of the 6 studies on hypertension showed any improvements in clinical outcomes (mean changes in blood pressure or diastolic blood pressure).

Conclusion
Implementation of clinical practice guidelines in primary care settings does not consistently result in improvements in clinical outcomes.

Source of funding: Not stated.

For article reprint: Dr. G. Worrall, Centre for Rural Health Studies, Dr. W.H. Newlands Community Health Centre, Whitbourne, Nl AOB 3K0, Canada. FAX 709-2387. E-mail gworrall@morgans.uottawa.ca


Commentary
Worrall and colleagues have produced a focused systematic review of whether practice guidelines improve clinical outcomes in primary care settings. They also attempted to critically appraise the included trials for validity and applicability. Readers of this systematic review should note that the authors narrowly defined studies of clinical care as those involving only the care of patients with existing medical conditions, thereby excluding studies on preventive care interventions.

Another recent systematic review (1) included 59 studies; only 11 emphasized patient outcomes, although the guidelines were broadly defined and study designs other than randomized trials were accepted. Both reviews highlight methodologic challenges with these trials, including vulnerability to contamination between groups, difficulty in collecting meaningful short- and long-term patient outcomes, and the need to assess adverse effects of guideline implementation.

Data extraction
Data were extracted on country and type of practice; physician and patient numbers and characteristics; duration, length, and completeness of follow-up; study methods; type of guideline, including sponsoring agency; method of guideline implementation; effect on patient outcomes; and how outcomes were measured.

Little support exists to show that guidelines in primary care settings improve patient outcomes. Interest in studying the effect of guidelines on patient care, however, signals substantial maturation of the guideline movement, with an encouraging shift from the proliferation of guidelines to concern about whether guidelines actually do more good than harm.

How should thoughtful clinicians regard the use of guidelines in their practice? At this stage, we should continue to accept the intrinsic appeal of evidence-based health care—our patients are probably better served if their physicians continually seek out the best evidence to inform their decision making. How this information is best packaged, disseminated, and implemented is our next challenge. To best serve our patients, we should all become familiar with the components of high-quality guidelines (2, 3) and take active roles in their development.