Practice Guidelines and Practicing Physicians—Who’s Guiding Whom?

When I was a medical student, I had a medicine rotation with a spectacular senior resident and a less than stellar staffperson. The resident was very smart, terrifically organized, and ran the service extremely efficiently. The staffperson had probably spent too much time away from clinical medicine. I distinctly remember team rounds in which our resident would present cases such that the staffperson appeared to make the big decisions (“I was uncertain what to do but thought that you would likely get a bone marrow biopsy”, to which the staffperson would usually nod and muse, “Good plan”). As a student, I was struck by the irony of a resident guiding the staffperson. Now that I am a staffperson, who probably spends too much time away from clinical medicine, I am struck by how cunning the staffperson was to listen carefully to the resident and accept the valid decisions.

Like a wise staffperson, guidelines are supposed to help physicians practice best medicine within an environment containing an ever-increasing volume of information. Although guidelines have been successful in changing physician practice (1, 2), they have not always been successful in modifying laboratory utilization (3). There are many possible reasons to explain this. Not all physicians receive, read, or agree with particular guidelines. Because it is impossible for guidelines to consider all variations in patient populations and physician practice styles, dissonance between guideline recommendations and actual practice will always exist. Finally, information contained in guidelines has often been disseminated through other routes and has already modified the practice of receptive physicians.

This last issue is one aspect of a report in this month’s issue of Clinical Chemistry (4). This report comes from one of the premier groups studying laboratory utilization and how it is modified. The study from van Wijk et al. (4) measures the compliance of 31 family physicians in The Netherlands with laboratory guidelines that are presented through a computer-based medical record. Over a 1-year study period, the authors found that physicians modified tests recommended by guidelines in 60.9% of orders. Most commonly, the guideline recommendations were modified by the addition of tests. Most interestingly, van Wijk et al. found that 52.4% of the tests that were initially classified as “noncompliant” within four of the categories were later actually recommended by the guidelines when they were updated.

The authors interpret the latter data as evidence that practitioners are applying new medical insight before it is incorporated into revised practice guidelines. Given the numerous and often lengthy steps required for the development and dissemination of practice guidelines (5), it is not unbelievable that this might happen. The phenomenon of on-the-front physicians changing their laboratory utilization before recommendations are published has been seen elsewhere. In a population-based study, we found that test utilization during the years before guideline dissemination trended in the same direction that the guideline wanted utilization to change (3). For example, utilization of erythrocyte sedimentation rate was decreasing before the successful introduction of interventions to curb its use. These data suggest that some practicing physicians are reading and incorporating the same clinical evidence on which subsequently introduced practice guidelines are based. They also highlight that studies examining noncompliance with guideline recommendations must be aware that valid reasons might explain the dissonance between physician behavior and guideline recommendations. Perhaps routine monitoring of what physicians actually do, as compared with what guidelines suggest, might facilitate the updating of guidelines and avoid outdated recommendations (6). A consistent dissonance between guideline recommendations and how physicians actually practice could indicate an oversight of the guidelines or the release of new evidence that makes the recommendation obsolete.

These points highlight, for both readers and researchers, that compliance with guidelines does not necessarily translate into appropriate patient care. This requires both a valid guideline and a patient to whom the application of the guideline is appropriate. It is this last issue that makes assessing the appropriateness of laboratory utilization especially problematic. This is because the appropriateness of almost all nonscreening tests depends on the pretest probability of the disease that one is seeking. With a few exceptions, quantifying the pretest probability for most disease processes is a rogue’s game at best. Therefore, a true assessment of laboratory appropriateness is a difficult exercise. It must be kept in mind that this is not being measured with laboratory guidelines compliance.

The study by van Wijk et al. (4) is notable for other reasons. The BloodLink system on which the study is based is an example of a proactive, point-of-care strategy for disseminating guideline recommendations. Such methods are usually more successful in changing physician behavior than is the usual passive dissemination of practice guidelines (5). The study, along with the randomized trial on which it is based (7), also highlights the power of the electronic medical record both for introducing methods to change physician behavior and for studying the success of such interventions.

Future research into the uptake of, and noncompliance with, practice guidelines should consider the study in this month’s Clinical Chemistry. It highlights that dissonance between actual physician practice and guideline recommendation might be appropriate. Just as my old staffperson was correct not to condemn the resident for doing things differently than he would have, guideline researchers should also remember that physicians who do not follow guidelines are not always wrong.
Dr. van Walraven is supported by an Ontario Ministry of Health Career Scientist Award.

References

Carl van Walraven

Department of Medicine at the University of Ottawa
Clinical Epidemiology Unit
Ottawa Health Research Institute
Institute for Clinical Evaluative Sciences
Ottawa, Ontario, K1N 5K3 Canada

Address for correspondence: Department of Medicine, the Ottawa Hospital–Civic Campus, F-660, 1053 Carling Ave., Ottawa, ON, K1N 5K3 Canada. Fax 613-761-5351; e-mail carlv@ohri.ca.