Widespread variation in medical practices and outcomes in seemingly similar populations has raised serious concerns about the quality of health care (1). Well-documented variations in outcomes can be explained partly by failures to apply best practices consistently in delivering care known to be effective (1,2). Equally important, however, are variations in rates of specific surgical or medical interventions in seemingly similar populations that reflect inadequate appreciation for the importance of individual patients’ well-informed preferences for care and subsequent health outcomes (3,4). Efforts to improve patient-centered decision quality are especially critical to ensuring quality cancer care (5).

Making a good decision about cancer treatment is a complex and difficult task. It requires a certain emotional readiness, information about options and uncertain outcomes, clarity about which trade-offs—among outcomes and over time—are acceptable, and a sense of confidence about the decision itself and its implementation. Decision aids have been developed to assist doctor and patient in making good decisions together. One approach is the “decision board” described by researchers at McMaster University over the past decade. In this issue of the Journal, Whelan et al. (6) now report results of the first randomized controlled trial of a decision board, also the first randomized controlled trial of a decision aid for women considering chemotherapy for lymph node-negative breast cancer. This study confirms the efficacy of their particular approach in achieving improvement in decision quality and adds to the mounting evidence of the efficacy of decision aids.

In its 2003 update (7), the International Cochrane Collaboration Systematic review registered over 200 patient decision aids in its inventory and 62 ongoing and published randomized controlled trials. A review of the 34 published randomized controlled trials, including 19 with cancer-related outcomes, showed large, consistent absolute knowledge gains for patients exposed to decision aids (19 points out of 100) when compared with patients randomly assigned to receive standard care. However, the knowledge gains were much smaller (4 points out of 100) for patients exposed to more detailed decision aids compared with simpler educational materials such as pamphlets. The smaller knowledge gain when the control is a simple educational intervention is due to the overlap in information provided in both interventions. This may explain why the study of Whelan et al. (6) with a usual care control showed a knowledge difference and those of Street et al. (8) and Goel et al. (9), who used an educational control, did not.

Does this mean that simpler educational methods are good enough? Not if you look at other important measures of decision quality. Even when there is an educational control, decision aids show large and consistent gains in the accuracy of patients’ perceptions of their probabilities of outcomes with and without treatment. The gain in accuracy is large (40%–50%) because decision aids are unique in presenting probabilities of outcomes, which are often tailored to the patient’s clinical risk profile (7). Realistic probabilities of benefits and harms are important outcomes because they often affect decisions, and even when they don’t, they affect distress from unrealistic perceptions of risk. For example, Lerman et al. (10) demonstrated that women who have a relative with breast cancer overestimated their own risk; these overestimations could be improved with risk counseling. Moreover, there was a commensurate reduction in distress from perceived risk, particularly among the less educated. Indeed, distress scales focused specifically on risk and uncertainty may be better measures of emotional impact of decision aids, because Whelan’s trial (6) and six others (7) have shown that anxiety scales do not discriminate between interventions.

A second important indicator of decision quality is the match between what patients value and what they choose. A survey of Ontario physicians who treat breast cancer indicated that patients’ understanding of value trade-offs was the most important outcome with which to judge the efficacy of decision aids (11). Although the decisional conflict scale used by Whelan et al. (6) does elicit patients’ perceptions of whether their choice reflects their values, these perceptions need to be validated with other methods.

Three of three randomized trials (7), all focusing on menopause hormone decisions, and using three separate validation methods, found that decision aids were better than educational interventions in improving the match between values and choices. Women who were more concerned about the risks of cancer than the benefits of menopause symptom relief or prevention of hip fractures were more likely to forego menopausal hormone therapy than those who were less concerned about the cancer risks and who placed more value on the benefits. This match between values and choices was more pronounced in those exposed to decision aids than in those exposed to educational controls. Barry et al. (12) also showed that men who are especially bothered by their urinary symptoms are seven times more likely to choose surgery for benign prostate disease than those who are not. Men who are especially bothered by the

Affiliations of authors: A. M. O’Connor, University of Ottawa and Ottawa Health Research Institute, Canada; A. G. Mulley, Jr., Massachusetts General Hospital and Harvard Medical School, Boston, MA; J. E. Wennberg, Clinical Evaluative Sciences, Dartmouth Medical School, Hanover, NH.

Correspondence to: John E. Wennberg, M.D., M.P.H., Center for the Evaluative Clinical Sciences, Dartmouth Medical School, Hanover, NH (e-mail: john.wennberg@dartmouth.edu).

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prospect of sexual dysfunction as a complication of surgery are one-fifth as likely to choose it compared with those who are not (12).

Whelan et al. (6) demonstrated improvement in satisfaction, which happens in about half the trials of decisions aids. This inconsistency may be due not only to the variable sensitivity of different measures used to detect differences but also to difficulties embedding decision aids in the process of care. For some decisions, it is tricky to describe the right options to the right patient at the right time. Models of delivering decision aids in practice that satisfy both patients and clinicians need to be developed and evaluated.

Graham et al. (13) have identified several barriers/facilitators to implementation in general and in specialty medical practices. Practitioners need to be aware that decision aids exist and accessibility should be smooth, automatic, and timely. Decision aids need to be compatible with practitioners’ practices and personal beliefs, up-to-date, attractive, easy to use, and not require additional cost, time, or equipment. Finally, practitioners identified the need to feel motivated to use decision aids by factors such as time saving, avoidance of repetition, not requiring extra calls from patients, potential to decrease liability, and improved decision quality with the possibility of reducing waiting list pressures.

Perhaps the motivation that doctors need most must await development and wide use of valid but simple measures of decision quality. Such measures would undoubtedly disclose important gaps in relevant information and important mismatches between what patients value and the treatment they receive. Such disclosures, combined with evidence for measurable improvement in decision quality achieved by use of decision aids, would provide a compelling call to action not only for doctors but also for their patients and all those in health care committed to doing the right thing right.

REFERENCES


NOTE

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