Wise guidance and its challenges: the new Canadian recommendations on breast cancer screening

Deborah Korenstein MD

Cite as: *CMAJ* 2018 December 10;190:E1432-3. doi: 10.1503/cmaj.181538

See related article at www.cmaj.ca/lookup/doi/10.1503/cmaj.180463

Value, defined as clinical outcomes relative to costs, is increasingly emphasized in health care around the world.[1] Discussions on value at the system level often focus on the cost component of the value equation. However, the real key to high-value care is achieving the best clinical outcomes, accounting for both potential benefits and harms of care. Achieving value thus goes far beyond cost control and requires avoiding nonbeneficial or wasteful care through understanding and weighing benefits and harms. Most health care interventions have both potential benefits and potential harms that may vary in likelihood and in clinical and emotional importance among individuals, so determinations regarding value often require interpretation in the context of a patient. Such personalization requires shared decision-making.[2]

The new recommendations on breast cancer screening from the Canadian Task Force on Preventive Health Care[3] serve as a model for the important role of guidelines in promoting value in health care.[4] Clinical practice guidelines play a key role in improving value as they are often used to define appropriate care. Ongoing efforts to improve the quality of guidelines themselves have focused mainly on ensuring sound development, management of competing interests, processes for assessing evidence and clear presentation of recommendations.[4] Transparency and rigour in guideline development are critical and need continuous attention. However, high-quality guidelines can also serve as tools to promote value in health care by transparently quantifying both benefits and harms of care, incorporating notions of value (e.g., by recommending against particular services) and encouraging shared decision-making.[5]

Using recommended guideline development processes to minimize bias,[4] the task force's panel quantified potential benefits (death from breast cancer) and potential harms (overdiagnosis of indolent lesions, false-positive screens, unnecessary biopsies) of screening for breast cancer and included a novel systematic review of women's values and preferences. Although quantifying rates of all potential outcomes is critical, there is no clear method for balancing beneficial and harmful outcomes, so the numbers alone are insufficient to inform clinical decisions. For example, how should we weigh the clear benefit of reduced mortality against the morbidity that accompanies overdiagnosis? Does 1 life saved warrant 50 overdiagnoses, or 100, or 1000? Because the answer is subjective and may vary among women, the patient perspective is critical.

KEY POINTS

- Value is increasingly emphasized in health systems internationally; however, value is not only about cost efficiency, but also about achieving the best clinical outcomes, given both the potential benefits and harms of a given screening, diagnostic or therapeutic intervention.
- Determinations of value require interpretation in the context of the individual patient, and such personalization requires shared decision-making.
- New Canadian guidance on breast cancer screening leads the way in encouraging clinicians to prioritize patient-centred care and value, but there are challenges to implementation.
- Challenges can be overcome by ensuring system support to facilitate shared decision-making through use of existing decision aids or other tools.

The main task force guideline recommendations — against screening in women in their 40s and for screening women aged 50 to 74 with mammography every 2 to 3 years — encourage value through avoidance of nonbeneficial care and are similar to recommendations from the 2011 task force guidelines[6] and from other international organizations.[7] However, the new task force guideline goes further: it is alone among similar guidelines in noting in the main recommendation for all age groups that "the decision to undergo screening is conditional on the relative value that a woman places on possible benefits and harms." This overt across-the-board acknowledgement of the primacy of the patient worldview encourages Canadian physicians to prioritize patient-centred care and value.

Guidelines incorporating a primary role for patient priorities have great potential to improve value but present implementation

challenges. The first of these is time. Patients considering potential benefits and harms of screening (or other services) favour discussing the issue with their doctor,[8] but such discussions take time and may displace other clinical priorities during an already brief visit. Second, individualized risk assessment and balancing potential screening benefits and harms are complex. Clinicians may lack the numeracy and understanding of risk required to inform patient choices.[9] They may also lack skill in shared decision-making.[2] It is far easier simply to order, or not order, a test.

There are also cultural challenges to truly balanced decisions, including an implicit bias in the language of health care discussions, where "benefits" (implying certainty) are compared with "risks" of harms (implying uncertainty). This linguistic mismatch permeates our attitudes and predisposes toward overestimating benefits compared with harms; indeed, patients are more likely to be informed of benefits than harms of screening.[10] There are decision aids designed to facilitate shared decision-making and combat these barriers, but uptake has been disappointing and physicians may find them burdensome.[11]

Other challenges are systemic. As discussed in the new guideline, the importance of patient preference implies that physicians' adherence to the guideline and the success of population-based screening programs cannot be understood based solely on rates of screening, as nonreceipt of screening may reflect better care. Participation levels are difficult to interpret in this context, particularly as both patient preference and barriers to care access may vary among subgroups within the population.

Many of these challenges can be addressed. Decision aids can facilitate exchange of high-quality information between patients and doctors and can bypass gaps in physician understanding; many exist and some are helpfully provided on the task force website (www.canadiantaskforce.ca). Uptake of decision aids can be facilitated. Before a visit, physicians could send aids designed to be completed independently by the patient and then review them briefly during the appointment, enabling efficient physician–patient shared decision-making with little burden. Others could be incorporated into the electronic medical record and used cooperatively by patients and physicians during a visit, thereby minimizing burden by automating documentation.

Regular use of decision aids in either of these ways would improve physician understanding of the benefits and harms of screening, benefiting even patients who opt not to use a decision aid. Physicians may need further training in shared decision-making to optimize use of these tools; such training could be incorporated into ongoing continuing medical education efforts and would be broadly applicable to other clinical scenarios. In addition, new metrics will be needed for measuring the success of public screening programs and screening practices of individual physicians, perhaps focusing on patient engagement in a screening decision rather than on receipt of testing.

By maintaining the best standards for guideline development and presentation, and by pushing the boundaries toward more personalization, the new task force guideline on screening for breast cancer shows how guidelines can be leveraged to improve value. To realize the potential of these tools for improving clinical outcomes that matter to patients, physicians must embrace shared decision-making, and health systems must find creative ways to improve its incorporation into workflows and evaluations.

References

1. Porter ME. What is value in health care? *N Engl J Med* 2010;363:2477-81.
2. Stiggelbout AM, Van der Weijden T, De Wit MP, et al. Shared decision-making: really putting patients at the centre of healthcare. *BMJ* 2012;344:e256.
3. Klarenbach S, Sims-Jones N, Lewin G, et al. Recommendations on screening for breast cancer in women 40–74 years of age who are not at increased risk for breast cancer. *CMAJ* 2018;190:E1441-51.
4. Qaseem A, Forland F, Macbeth F, et al. Guidelines International Network: toward international standards for clinical practice guidelines. Ann Intern Med 2012;156:525-31.
5. McCormack JP, Loewen P. Adding "value" to clinical practice guidelines. *Can Fam Physician* 2007;53:1326-7.
6. Tonelli M, Connor Gorber S, Joffres M, et al. Recommendations on screening for breast cancer in average-risk women aged 40–74 years. *CMAJ* 2011;183:1991-2001.
7. Siu AL. Screening for breast cancer: US Preventive Services Task Force recommendation statement. *Ann Intern Med* 2016;164:279-96.
8. Abelson J, Tripp L, Sussman J. "I just want to be able to make a choice": Results from citizen deliberations about mammography screening in Ontario, Canada. *Health Policy* 2018 Sept. 28 [Epub ahead of print] doi.org/10.1016/j.healthpol.2018.09.013.
9. Wegwarth O, Gigerenzer G. The barrier to informed choice in cancer screening: statistical illiteracy in physicians and patients. *Recent Results Cancer Res* 2018;210:207-21.
10. Hoffman RM, Elmore JG, Fairfield KM, et al. Lack of shared decision making in cancer screening discussions: results from a national survey. *Am J Prev Med* 2014;47:251-9.
11. Drug and Therapeutics Bulletin. An introduction to patient decision aids. *BMJ* 2013;347:f4147.

Competing interests: None declared.

This article was solicited and has not been peer reviewed.

Affiliations: Memorial Sloan Kettering Cancer Center; Weill Cornell Medical College, New York, NY

Correspondence to: Deborah Korenstein, korenstd@mskcc.org