

Engaging Physicians and Consumers in Conversations About Treatment Overuse and Waste: A Short History of the Choosing Wisely Campaign

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Abstract

Wise management of health care resources is a core tenet of medical professionalism. To support physicians in fulfilling this responsibility and to engage patients in discussions about unnecessary care, tests, and procedures, in April 2012 the American Board of Internal Medicine Foundation, Consumer Reports, and nine medical specialty societies launched the Choosing Wisely campaign. The authors describe the rationale for and history of the campaign, its structure and approach

in terms of engaging both physicians and patients, lessons learned, and future steps.

In developing the Choosing Wisely campaign, the specialty societies each developed lists of five tests and procedures that physicians and patients should question. Over 50 specialty societies have developed more than 250 evidence-based recommendations, some of which Consumer Reports has “translated” into consumer-friendly language and helped disseminate to

tens of millions of consumers. A number of delivery systems, specialty societies, state medical societies, and regional health collaboratives are also advancing the campaign’s recommendations. The campaign’s success lies in its unique focus on professional values and patient–physician conversations to reduce unnecessary care. Measurement and evaluation of the campaign’s impact on attitudinal and behavioral change is needed.

On April 4, 2012, the American Board of Internal Medicine Foundation (ABIMF), Consumer Reports, and nine medical specialty societies launched the Choosing Wisely campaign. Each participating society announced evidence-based lists of five tests or procedures in its clinical domain that are performed too often. Encouraged by the successful reception of this release, 17 societies announced new lists of tests and procedures in February 2013. Although our ultimate goal is to reduce wasteful care, our immediate goal was to encourage physicians and patients to have conversations about what care is truly needed, and to debunk the notion that more is better.

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As leaders of the campaign at ABIMF and Consumer Reports, we aim through this article to provide a first-person perspective on the background and purpose of the Choosing Wisely campaign, the structure and approach of the initiative, and lessons learned and future plans.

Background and Purpose of the Campaign

The Choosing Wisely campaign’s origins date back to the 2002 publication of *Medical Professionalism in the New Millennium: A Physician Charter*, coauthored by the ABIMF, the American College of Physicians (ACP) Foundation, and the European Federation of Internal Medicine.^{1,2} The charter provides a new set of professional responsibilities that physicians must uphold in return for the privilege of self-regulation.

The charter’s three core principles are the primacy of patient welfare, patient autonomy, and social justice. The 10 commitments that set it apart from previous professional declarations, such as the Hippocratic Oath, include managing conflicts of interest, improving the quality of care, improving access to care, and promoting the just distribution of finite resources. The charter’s major contribution was to provide a new “job description” for physicians that included

responsibilities beyond caring for the individual patient. The principles of social justice and patient autonomy were the most progressive elements of the charter. The social justice principle directly relates to the just distribution of finite resources.

When the *Charter* and related articles were initially published, a challenge cited by some physicians^{3,4} was that the “Primacy of Patient Welfare” principle was in direct conflict with the call for physicians also to manage finite resources. Since the creation of the Hippocratic Oath physicians have been directed to work single-mindedly as their patient’s advocate⁵. The counterargument was that managing resources was not to happen at the bedside but through clinical guidelines, appropriate use criteria, and comparative effectiveness research developed by professional organizations and other non-conflicted organizations, including government-sponsored entities.

The charter serves as the underlying framework of the Choosing Wisely campaign. Since the charter’s publication, the ABIMF has worked to fulfill its principles and commitments, including conflict of interest,⁶ quality improvement,⁷ care coordination,⁸ and teamwork.⁹ Through those activities, the ABIMF developed relationships with several

specialty societies that built the mutual respect and trust necessary for them to join the Choosing Wisely campaign.

Ultimately, Choosing Wisely is focused on supporting conversations between physicians and patients about what care is truly necessary. While physicians aspire to embody the goals of the charter, we learned from research by Campbell and colleagues¹⁰ that there was a large gap between physicians' aspirations and their actual behavior. Ninety percent or more of respondents in Campbell and colleagues' survey agreed with specific statements about principles of fair distribution of finite resources, improving access to and quality of care, managing conflicts of interest, and professional self-regulation. However, when asked how they'd behave in specific situations, 36% said they would accommodate a patient who badly wanted a test, even if the physician knew it was unnecessary. Addressing this gap between aspirations and actual professional behaviors served as one of the guiding aims when constructing the Choosing Wisely campaign.

In 2009, the ABIMF engaged consultants to explore the language physicians use in describing medical professionalism, and their motivations to engage in professionalism ideals embodied in the charter, including the principle of "just distribution of finite resources." This exploratory constituency communications research, intended to inform the foundation's program development, involved interviews (12 practicing physicians and 2 trainees), focus groups (two groups in Baltimore in 2011), and a national survey of physicians (502 physicians, conducted from August 30 to September 15, 2011). The research found that the primary drivers for physicians to embody the behaviors articulated in the charter are activities that enhance patient well-being, achieve personal and professional well-being and fulfillment, and improve quality of care for their own patients.

When physicians were presented with language that moved away from the interests of the patient or their own well-being, and toward society's need for a sustainable health system, they were less motivated to take action. The physicians agreed that phrases such as "Wise choices" accurately reflected their desire to

empower their patients to make informed decisions about their treatment, while encompassing the ideals of the charter they sought to live up to.

Structure and Approach: Engaging Physicians

In 2009, the National Physicians Alliance (NPA), a physician organization dedicated to professional integrity and health justice, received an ABIMF grant to develop an operational concept of "five things to question" that was ultimately the centerpiece of the Choosing Wisely campaign. Through a peer review process of its members, the NPA created lists of five interventions in internal medicine, family medicine, and pediatrics that should not be performed, as part of their Good Stewardship Project.¹¹ Around the same time, Howard Brody, an ethicist from University of Texas at Galveston,¹² called on specialty societies to identify five tests and procedures as a way for physicians to constructively address the cost and waste issue during the health care reform debate. Writers such as Shannon Brownlee, in her book *Overtreated*,¹³ Rosemary Gibson and Janardan Prasad Singh in *The Treatment Trap*,¹⁴ and Deborah Grady and Rita Redberg in the "Less is More" section of the *Archives of Internal Medicine*¹⁵ laid down an important foundation that began a dialogue with the public and physicians about the ill effects of too much care.

Building on the success of the NPA's project, the ABIMF believed the concept of creating lists of unnecessary tests and procedures could be broadened to a wide range of specialty societies—with three critical elements:

- the things on the list needed to be within that society's clinical domain;
- they needed to be done frequently in practice and incur real costs; and
- they must be evidence-based recommendations.

In early 2011, ABIMF staff began presenting the campaign to specialty society leadership. In this first recruiting stage, we argued that societies should join the campaign to show

- professional obligation to provide appropriate care;
- continued leadership in evidence-based medicine;

- their recognition of escalating health care costs;
- their commitment to transparency and shared decision making; and
- the importance of taking proactive measures to address waste.

At the same time, we acknowledged that their members could view the campaign as a threat to their revenue, and that it did not offer a "magic bullet" against heavy-handed intervention by public and private payers. We also recognized that the campaign might fail to garner media attention, or might even draw a negative reaction from consumers.

After the initial outreach, nine societies—from within and outside internal medicine—agreed to join the campaign. Each society was free to develop its own method to create its list, although each was required to document the process and make it publicly available. Most societies used existing quality and safety committees to develop their lists and solicited feedback from their members through surveys or mailings, and many presented their lists to their governing boards for final approval. Table 1 shows examples of Choosing Wisely recommendations from the more than 50 currently participating specialty societies.^{16–25} To date, 16 societies have published journal articles on the science behind their recommendations.^{26–42}

Structure and Approach: Engaging Patients

As we worked with the medical societies, it became clear that an important component was missing in the campaign. Our research told us that we needed to focus on the physician/patient interaction, and the nine societies reached nearly 375,000 physicians. But we still needed a way to engage patients in this effort so they would be empowered to understand what was on the specialty society lists and engage in conversations with their physicians about potentially unnecessary tests and procedures. The ABIMF found a patient engagement partner in Consumer Reports.

Consumer Reports began focusing more resources on health in 2007. Consistent with its 78-year mission, it launched major activities to compare health services, products, institutions, and practitioners. Variation in performance

Table 1

Sample Recommendations Aimed at Reducing Unnecessary Health Care Tests and Procedures, Developed From the Choosing Wisely Campaign, 2012^a

Specialty society	Recommendation
American Academy of Family Physicians	<p>Don't do imaging for low back pain within the first six weeks, unless red flags are present.</p> <ul style="list-style-type: none"> Red flags include, but are not limited to, severe or progressive neurological deficits or when serious underlying conditions such as osteomyelitis are suspected. Imaging of the lower spine before six weeks does not improve outcomes, but does increase costs. Low back pain is the fifth most common reason for all physician visits.¹⁶
American Academy of Hospice and Palliative Medicine	<p>Don't delay palliative care for a patient with serious illness who has physical, psychological, social, or spiritual distress because they are pursuing disease-directed treatment.</p> <ul style="list-style-type: none"> Numerous studies—including randomized trials—provide evidence that palliative care improves pain and symptom control, improves family satisfaction with care, and reduces costs. Palliative care does not accelerate death, and may prolong life in selected populations.¹⁷
American Academy of Pediatrics	<p>Antibiotics should not be used for apparent viral respiratory illnesses (sinusitis, pharyngitis, bronchitis).</p> <ul style="list-style-type: none"> Although overall antibiotic prescription rates for children have fallen, they still remain alarmingly high. Unnecessary medication use for viral respiratory illnesses can lead to antibiotic resistance and contributes to higher health care costs and the risks of adverse events.¹⁸
American College of Obstetricians and Gynecologists	<p>Don't schedule elective, nonmedically indicated inductions of labor or cesarean deliveries before 39 weeks 0 days gestational age.</p> <ul style="list-style-type: none"> Delivery prior to 39 weeks 0 days has been shown to be associated with an increased risk of learning disabilities and a potential increase in morbidity and mortality. There are clear medical indications for delivery prior to 39 weeks 0 days based on maternal and/or fetal conditions. A mature fetal lung test, in the absence of appropriate clinical criteria, is not an indication for delivery.¹⁹
American College of Physicians	<p>Don't obtain screening exercise electrocardiogram testing in individuals who are asymptomatic and at low risk for coronary heart disease.</p> <ul style="list-style-type: none"> In asymptomatic individuals at low risk for coronary heart disease (10-year risk < 10%) screening for coronary heart disease with exercise electrocardiography does not improve patient outcomes.²⁰
American College of Surgeons	<p>Avoid admission or preoperative chest X-rays for ambulatory patients with unremarkable history and physical exam.</p> <ul style="list-style-type: none"> Performing routine admission or preoperative chest X-rays is not recommended for ambulatory patients without specific reasons suggested by the history and/or physical examination findings. Only 2% of such images lead to a change in management. Obtaining a chest radiograph is reasonable if acute cardiopulmonary disease is suspected or there is a history of chronic stable cardiopulmonary diseases in patients older than age 70 who have not had chest radiography within six months.²¹
American Geriatrics Society	<p>Don't recommend percutaneous feeding tubes in patients with advanced dementia; instead, offer oral assisted feeding.</p> <ul style="list-style-type: none"> Careful hand-feeding for patients with severe dementia is at least as good as tube-feeding for the outcomes of death, aspiration pneumonia, functional status, and patient comfort. Food is the preferred nutrient. Tube-feeding is associated with agitation, increased use of physical and chemical restraints, and worsening pressure ulcers.²²
American Society of Clinical Oncology	<p>Don't use cancer-directed therapy for solid tumor patients with the following characteristics: low performance status (3 or 4), no benefit from prior evidence-based interventions, not eligible for a clinical trial, and no strong evidence supporting the clinical value of further anticancer treatment.</p> <ul style="list-style-type: none"> Studies show that cancer-directed treatments are likely to be ineffective for solid tumor patients who meet the above stated criteria. Exceptions include patients with functional limitations due to other conditions resulting in a low performance status or those with disease characteristics (e.g., mutations) that suggest a high likelihood of response to therapy. Implementation of this approach should be accompanied with appropriate palliative and supportive care.²³
American Society for Radiation Oncology	<p>Don't routinely recommend proton beam therapy for prostate cancer outside of a prospective clinical trial or registry.</p> <ul style="list-style-type: none"> There is no clear evidence that proton beam therapy for prostate cancer offers any clinical advantage over other forms of definitive radiation therapy. Clinical trials are necessary to establish a possible advantage of this expensive therapy.²⁴
Society of General Internal Medicine	<p>Don't perform routine general health checks for asymptomatic adults.</p> <ul style="list-style-type: none"> Routine general health checks are office visits between a health professional and a patient exclusively for preventive counseling and screening tests. In contrast to office visits for acute illness, specific evidence-based preventive strategies, or chronic care management such as treatment of high blood pressure, regularly scheduled general health checks without a specific cause including the "health maintenance" annual visit, have not shown to be effective in reducing morbidity, mortality, or hospitalization, while creating a potential for harm from unnecessary testing.²⁵

^aThe Choosing Wisely campaign was developed by the American Board of Internal Medicine Foundation and Consumer Reports, in concert with specialty societies.

and lack of correlation between quality and cost were prevalent across published comparisons. Overuse and underuse were found to be common. But messaging around these issues met with resistance from industry and consumers. Independent of the ABIME, Consumer Reports conducted an exploratory review in 2010 of the cognitive psychology literature around messaging related to “What Not to Do,”⁴³ a literature review and white paper aimed at improving communication to consumers about decision making. Consumer Reports conducted a survey demonstrating that large numbers of consumers were undergoing wasteful heart disease screening tests (as determined by Consumer Reports ratings)⁴⁴ while rarely receiving effective explanations from physicians about why they were getting these tests. The survey focused on 1,183 Consumer Reports subscribers, 40 to 60 years old, who did not have high cholesterol or blood pressure, were never diagnosed with any heart condition, never experienced symptoms of heart disease, never smoked, and rated their health as “good” or “excellent.” Of that group, 39% reported receiving an EKG in the last five years, 12% a stress test, and 10% an ECHO. Only 17% knew what problem the test was screening for, 11% what would be done if the test was abnormal, 9% the test accuracy, 4% the potential complications, and only 1% whether the test saved lives.

By 2011, Consumer Reports had begun using the findings from this review and other work to develop messaging for consumers around ratings of heart disease screening tests that was met with better understanding and acceptance. Consumer Reports agreed to assist with the ACP’s work on “high-value cost-conscious care,”⁴⁵ announced in February 2011. That summer, Consumer Reports published a magazine issue highlighting overuse of testing and care in heart disease, especially in percutaneous coronary interventions. Consumer Reports’ leadership had also decided to disseminate more information outside of its individual subscriber business model in hopes of having more impact.

By the fall of 2011, the ABIME, Consumer Reports, and the ACP had agreed that the most effective approach was to collaborate on the Choosing Wisely

campaign. Consumer Reports agreed to collaborate with the participating specialty societies to “translate” Choosing Wisely recommendations into consumer-friendly briefs. This partnership worked in part because Consumer Reports had a history of collaboration with specialty societies and had a nonprofit and independent culture that aligned well with the specialty societies and the ABIME. The briefs Consumer Reports produced included primers on allergy tests, children and antibiotics, and when patients should have chest x-rays before surgery. Consumer Reports also organized a network of 14 large organizations with access to millions of consumers, including groups such as the AARP, employer coalitions, labor, Wikipedia, and others. These organizations committed to distribute Choosing Wisely information to at least one million consumers each.

Lessons Learned

A set of hopefully enduring principles has guided the Choosing Wisely campaign to date. They include:

- “Choosing Wisely” resonates with physicians and patients because it consists of using respectful conversations to make informed care choices. The societies’ recommendations promote conversation because they are not absolutes but are instead tests and procedures that patients and physicians should question.
- Framing unnecessary care as waste also draws the attention of patients and physicians. Waste is disrespectful of patients’ time and money and puts them unduly at risk for harm. Waste is a quality and safety issue, and removing waste makes health care better.
- Professional values and responsibilities are a potent motivator for physicians to improve the delivery of care and address resource use.
- The physician leadership of the specialty societies and the participation of highly respected consumer/patient groups are essential to establishing the credibility and trustworthiness of this effort.
- While the lists provide a starting point for discussions, many physicians require guidance in how to communicate effectively about potentially unnecessary care.

The Achievements of the Choosing Wisely Campaign

We are not aware of a health campaign in recent memory that has attracted more attention than Choosing Wisely in the consumer and medical trade media (especially medical journals). We estimate that tens of millions of consumers and hundreds of thousands of physicians have likely read about Choosing Wisely based on widespread coverage in consumer publications, more than 160 journal articles on the campaign and its recommendations, and hundreds of thousands of visits to www.choosingwisely.org. As of September 13, 2013, more than 50 specialty societies have joined the campaign, including all primary care specialties and most medical and surgical specialties. The campaign’s timing—focusing on overuse at a time of ever-escalating health care costs—surely played a major role in galvanizing attention.

At this stage of the campaign, we intentionally focused on changing physician and patient attitudes rather than embarking on specific strategies to change behavior, believing that “culture trumps strategy.” Our belief is that reform of the delivery system in the 1990s failed in part because of a lack of attention to culture and professional engagement with consumers.

Critics are concerned that we have not emphasized measurement enough and as a result cannot report that the campaign has successfully changed behaviors, which is correct. None of the organizations involved in the campaign, including the ABIME, Consumer Reports, and the more than 50 professional societies, has the data or the resources to take on this task. But we have urged others to do so, including health systems and other delivery sites that have the resources and data necessary for this type of measurement, and we look forward to their results.

Nonetheless, the outcomes seen in its short history include:

- The creation of a coalition of more than 50 professional societies and at least 14 consumer/patient/employer groups dedicated to addressing waste in the health care system. This coalition supported and reflected a nonpartisan consensus among policy makers and

health care stakeholders about the need to remove waste.

- The development of more than 250 evidence- and expertise-based recommendations by specialty societies to avoid wasteful tests and procedures. This is substantially more than what has been previously reported.⁴⁶
- The strong commitment of physician and consumer leaders to promote better care, removing waste and protecting patients from harm.
- The campaign has “softened the ground” for conversations about waste and prepared the nation for more difficult conversations.
- In the first year of the campaign, 106 peer-reviewed journal articles were published mentioning the campaign and examining the evidence for the recommendations—a number that has since grown to more than 160.
- In the first year of the campaign, close to 100 million consumers were reached with the Choosing Wisely message through hundreds of stories and millions of readers.

The Future

In addition to the development of new specialty society lists of procedures or tests to question, we will continue to support efforts to engage physicians and consumers in these important conversations. Through a grant from the Robert Wood Johnson Foundation, the ABIMF is funding specialty societies, state medical societies, and regional health collaboratives to work on the local and regional levels to increase awareness of the recommendations and promote informed conversations. Learning networks will also be formed among these groups to share innovative ideas and best practices.

We also know that physicians don't necessarily have the communication skills to discuss “what not to do” with their patients.⁴⁷ To support physician learning in this area, the ABIMF engaged Drexel University School of Medicine to produce Web-based educational modules on communication skills. Consumer Reports will focus, as it has for 78 years, on the needs of consumers. The Choosing Wisely consumer partners will continue to reach out to their audiences and educate patients about what care they truly need.

Everyone agrees that patient welfare must come first. That welfare is currently threatened by the unpredictable financial future of our health care system. But if patients and physicians choose wisely, trusting each other as they do so, our shared future may improve.

Going forward, the major responsibility of the ABIMF and Consumer Reports will be to “ignite” efforts by others, such as having delivery systems and clinical practices apply the principles of the campaign and implement the recommendations in practice, while continuing to assert the basic principles of the campaign: waste's effect on quality of care, patient harm, and resource use.

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References

- 1 Medical Professionalism Project: American Board of Internal Medicine Foundation, American College of Physicians—American Society of Internal Medicine Foundation, and European Federation of Internal Medicine. Medical professionalism in the new millennium: A physician charter. *Ann Intern Med.* 2002;136:243–246.
- 2 Medical Professionalism Project: American Board of Internal Medicine Foundation, American College of Physicians—American Society of Internal Medicine Foundation, and European Federation of Internal Medicine. Medical professionalism in the new millennium: A physicians' charter. *Lancet.* 2002;359:520–522.
- 3 Emanuel LL. Deriving professionalism from its roots. *Am J Bioeth.* 2004;4:17–18.
- 4 Francis CK. Professionalism and the medical student. *Ann Intern Med.* 2004;141:735–736.
- 5 Leaf A. The doctor's dilemma—and society's too. *N Engl J Med.* 1984;310:718–721.
- 6 Brennan TA, Rothman DJ, Blank L, et al. Health industry practices that create conflicts of interest: A policy proposal for academic medical centers. *JAMA.* 2006;295:429–433.
- 7 Wolfson D, Bernabeo E, Leas B, Sofaer S, Pawlson G, Pillittere D. Quality improvement in small office settings: An examination of successful practices. *BMC Fam Pract.* 2009;10:14.
- 8 Snow V, Beck D, Budnitz T, et al. Transitions of Care Consensus policy statement: American College of Physicians, Society of General Internal Medicine, Society of Hospital Medicine, American Geriatrics Society, American College of Emergency Physicians, and Society for Academic Emergency Medicine. *J Hosp Med.* 2009;4:364–370.
- 9 Chesluk BJ, Holmboe ES. How teams work—or don't—in primary care: A field study on internal medicine practices. *Health Aff (Millwood).* 2010;29:874–879.
- 10 Campbell EG, Regan S, Gruen RL, et al. Professionalism in medicine: Results of a national survey of physicians. *Ann Intern Med.* 2007;147:795–802.
- 11 Good Stewardship Working Group. The “top 5” lists in primary care: Meeting the responsibility of professionalism. *Arch Intern Med.* 2011;171:1385–1390.
- 12 Brody H. Medicine's ethical responsibility for health care reform—the top five list. *N Engl J Med.* 2010;362:283–285.
- 13 Brownlee S. *Overtreated: Why Too Much Medicine Is Making Us Sicker and Poorer.* New York, NY: Bloomsbury USA; 2008.
- 14 Gibson R, Singh JP. *The Treatment Trap: How the Overuse of Medical Care Is Wrecking Your Health and What You Can Do to Prevent It.* Chicago, Ill: Rowman & Littlefield; 2010.
- 15 Grady D, Redberg RF. Less is more: How less health care can result in better health. *Arch Intern Med.* 2010;170:749–750.
- 16 American Academy of Family Physicians. Fifteen things physicians and patients should question. <http://www.choosingwisely.org/doctor-patient-lists/american-academy-of-family-physicians/>. Accessed February 25, 2014.
- 17 American Academy of Hospice and Palliative Medicine. Five things physicians and patients should question. <http://www.choosingwisely.org/doctor-patient-lists/american-academy-of-hospice-palliative-medicine/>. Accessed February 25, 2014.
- 18 American Academy of Pediatrics. Five things physicians and patients should question. <http://www.choosingwisely.org/doctor-patient-lists/american-academy-of-pediatrics/>. Accessed February 26, 2014.
- 19 American College of Obstetricians and Gynecologists. Five things physicians and patients should question. <http://www.choosingwisely.org/doctor-patient-lists/american-college-of-obstetricians-and-gynecologists/>. Accessed February 26, 2014.
- 20 American College of Physicians. Five things physicians and patients should question. <http://www.choosingwisely.org/doctor-patient-lists/american-college-of-physicians/>. Accessed February 26, 2014.
- 21 American College of Surgeons. Five things physicians and patients should question. <http://www.choosingwisely.org/doctor-patient-lists/american-college-of-surgeons/>. Accessed February 25, 2014.
- 22 American Geriatrics Society. Five things physicians and patients should question. <http://www.choosingwisely.org/doctor-patient-lists/american-geriatrics-society/>. Accessed February 25, 2014.
- 23 American Society of Clinical Oncology. Ten things physicians and patients should question. <http://www.choosingwisely.org/doctor-patient-lists/american-society-of-clinical-oncology/>. Accessed February 25, 2014.
- 24 American Society for Radiation Oncology. Five things physicians and patients should question. <http://www.choosingwisely.org/doctor-patient-lists/american-society-for-radiation-oncology/>. Accessed February 25, 2014.
- 25 Society of General Internal Medicine. Five things physicians and patients should question.

- <http://www.choosingwisely.org/doctor-patient-lists/society-of-general-internal-medicine/>. Accessed February 25, 2014.
- 26 American Geriatrics Society Choosing Wisely Workgroup. American Geriatrics Society identifies five things that healthcare providers and patients should question. *J Am Geriatr Soc*. 2013;61:622–631.
 - 27 Beller GA. Tests that may be overused or misused in cardiology: The Choosing Wisely campaign. *J Nucl Cardiol*. 2012;19:401–403.
 - 28 Bulger J, Nickel W, Messler J, et al. Choosing wisely in adult hospital medicine: Five opportunities for improved healthcare value. *J Hosp Med*. 2013;8:486–492.
 - 29 Dillehay GL. Choosing wisely in nuclear medicine and molecular imaging. *J Nucl Med*. 2013;54:17N–18N.
 - 30 Fischberg D, Bull J, Casarett D, et al; HPM Choosing Wisely Task Force. Five things physicians and patients should question in hospice and palliative medicine. *J Pain Symptom Manage*. 2013;45:595–605.
 - 31 Hilborne LH. When less is more for patients in laboratory testing. *Am J Clin Pathol*. 2013;139:271–272.
 - 32 Langer-Gould AM, Anderson WE, Armstrong MJ, et al. The American Academy of Neurology's top five choosing wisely recommendations. *Neurology*. 2013;81:1004–1011.
 - 33 Parke DW 2nd, Coleman AL, Rich WL 3rd, Lum F. Choosing wisely: Five ideas that physicians and patients can discuss. *Ophthalmology*. 2013;120:443–444.
 - 34 Qaseem A, Alguire P, Dallas P, et al. Appropriate use of screening and diagnostic tests to foster high-value, cost-conscious care. *Ann Intern Med*. 2012;156:147–149.
 - 35 Quinonez RA, Garber MD, Schroeder AR, et al. Choosing wisely in pediatric hospital medicine: Five opportunities for improved healthcare value. *J Hosp Med*. 2013;8:479–485.
 - 36 Robertson PJ, Brereton JM, Roberson DW, Shah RK, Nielsen DR. Choosing wisely: Our list. *Otolaryngol Head Neck Surg*. 2013;148:534–536.
 - 37 Schnipper LE, Smith TJ, Raghavan D, et al. American Society of Clinical Oncology identifies five key opportunities to improve care and reduce costs: The top five list for oncology. *J Clin Oncol*. 2012;30:1715–1724.
 - 38 Siwek J. Choosing wisely: Top interventions to improve health and reduce harm, while lowering costs. *Am Fam Physician*. 2012;86:128–133.
 - 39 Williams AW, Dwyer AC, Eddy AA, et al; American Society of Nephrology Quality, and Patient Safety Task Force. Critical and honest conversations: The evidence behind the “Choosing Wisely” campaign recommendations by the American Society of Nephrology. *Clin J Am Soc Nephrol*. 2012;7:1664–1672.
 - 40 Wood DE, Mitchell JD, Schmitz DS, et al. Choosing wisely: Cardiothoracic surgeons partnering with patients to make good health care decisions. *Ann Thorac Surg*. 2013;95:1130–1135.
 - 41 Yazdany J, Schmajuk G, Robbins M, et al; American College of Rheumatology Core Membership Group. Choosing wisely: The American College of Rheumatology's top 5 list of things physicians and patients should question. *Arthritis Care Res (Hoboken)*. 2013;65:329–339.
 - 42 Zoghbi WA. President's page: Plan, do, study, act: A proven path to progress. *J Am Coll Cardiol*. 2012;60:76–79.
 - 43 Sprenger A, Kane J, Schuler-Adair E. Health Actions Not to Do: Lessons for Consumer Decision-Making. Literature Review and White Paper. Rockville, Md: Agency for Healthcare Research and Quality; February 2010. AHRQ publication no. TK.
 - 44 Consumer Reports National Research Center: Heart Disease Prevention Survey, 2010 (unpublished).
 - 45 Owens DK, Qaseem A, Chou R, Shekelle P; Clinical Guidelines Committee of the American College of Physicians. High-value, cost-conscious health care: Concepts for clinicians to evaluate the benefits, harms, and costs of medical interventions. *Ann Intern Med*. 2011;154:174–180.
 - 46 Berenson R, Docteur E. Doing Better by Doing Less: Approaches to Tackle Overuse of Services. Timely Analysis of Immediate Policy Issues. Princeton, NJ: Robert Wood Johnson Foundation/Urban Institute; 2013.
 - 47 Levinson W, Lesser CS, Epstein RM. Developing physician communication skills for patient-centered care. *Health Aff (Millwood)*. 2010;29:1310–1318.