Taking action on overuse: Creating the culture for change

Michael L. Parchman[a,*], Nora B. Henrikson[a], Paula R. Blasi[a], Diana S. Buist[a], Robert Penfold[a],
Brian Austin[a], Emily H. Ganos[b]

[a] MaccColl Center for Health Care Innovation, Group Health Research Institute, Seattle, WA, United States
[b] Robert Wood Johnson Foundation, Princeton, NJ, United States

ABSTRACT

Background: Unnecessary care contributes to high costs and places patients at risk of harm. While most providers support reducing low-value care, changing established practice patterns is difficult and requires active engagement in sustained behavioral, organizational, and cultural change. Here we describe an action-planning framework to engage providers in reducing overused services.

Methods: The framework is informed by a comprehensive review of social science theory and literature, published reports of successful and unsuccessful efforts to reduce low-value care, and interviews with innovators of value-based care initiatives in twenty-three health care organizations across the United States. A multi-stakeholder advisory committee provided feedback on the framework and guidance on optimizing it for use in practice.

Results: The framework describes four conditions necessary for change: prioritize addressing low-value care; build a culture of trust, innovation and improvement; establish shared language and purpose; and commit resources to measurements. These conditions foster productive sense-making conversations between providers, between providers and patients, and among members of the health care team about the potential for harm from overuse and reflection on current frequency of use. Through these conversations providers, patients and team members think together as a group, learn how to coordinate individual behaviors, and jointly develop possibilities for coordinated action around specific areas of overuse.

Conclusions: Organizational efforts to engage providers in value-based care focused on creating conditions for productive sense-making conversations that lead to change.

Implications: Organizations can use this framework to enhance and strengthen provider engagement efforts to do less of what potentially harms and more of what truly helps patients.

There is growing interest in deploying strategies to address the overuse of low-value health care services,[1–3] those provided under circumstances where potential harm exceeds potential benefit.[4] Engaged and empowered providers committed to change possess great potential to take ownership of and lead the culture change required to address overuse. However, engagement can be difficult when it requires changing behaviors, especially when a replacement service is not readily available.[5–7]

Several theories and frameworks have emerged describing the phenomenon of de-implementation,[8–10] but they do not provide the operational guidance needed to support provider engagement. To meet this need, we identify and describe essential operational actions necessary to support provider engagement grounded in social science theory, literature, and the experiences of leading health care organizations across the United States in their efforts to address low value-care.

We propose an action-planning framework for use as a roadmap to guide engagement efforts for providers, patients, and all members of the health care team in efforts to reduce low-value care.

1. Methods

1.1. Sources of data

1.1.1. Multi-stakeholder advisory committee

We convened an eight-member stakeholder advisory committee that included patients, providers and health care leaders. Members provided substantive and interpretive input for the literature review, informed selection of sites for the environmental scan interviews and provided iterative feedback and interpretation of findings from both to inform elements of the framework. Two face-to-face meetings were

Please cite this article as: Parchman, M.L., Healthcare (2016), http://dx.doi.org/10.1016/j.hjdsi.2016.10.005

followed up by three conference calls with the group.

1.1.2. Literature review

To provide historical context and theoretical constructs, we studied peer-reviewed and grey literature from the social sciences and health care. Our initial scoping search focused on two main areas: existing evidence for effective ways to change physician behavior, and studies highlighting social or behavioral constructs relevant to the de-implementation of established behavior. We also searched in the humanities literature, including socio-linguistics, for constructs on the importance of the use of language and conversation. We then examined in more detail several specific examples of de-implementation of existing clinical practices described in the literature.[11] The results of the literature review informed the content of the interviews conducted in the environmental scan, served as background for discussions with our multi-stakeholder advisory committee, and identified the need for a framework to serve as a guide for efforts to engage providers.

1.1.3. Environmental scan

We interviewed 23 leaders of initiatives to reduce low-value care across the U.S. Organizations or individuals were nominated by the multi-stakeholder committee and selected through consensus by the investigator team. Interviewees participated in a telephone interview using a semi-structured interview template with specific probes focused on key factors that led to successes and failures of engaging providers in value-based care initiatives. Interview topics included the following: motivation for the organization to do the work; specifics on the work including where, with whom, and desired outcomes; phases of the project(s); their beliefs about what was most effective in gaining provider buy-in and behavior change; biggest challenges through the process; language used during the initiative; whether and how implementation of this work differed from other quality improvement efforts; role of leadership in the project; and lessons learned. We took detailed field notes from each interview and conducted thematic analysis to identify a set of common themes associated with successful de-implementation efforts. We also identified exemplar quotations from the interviews to illustrate each framework element.

1.2. Development of the action-planning framework

We presented an initial set of candidate critical framework elements to the stakeholder advisory group during a 2-day in-person meeting. We arrived at these elements based on our review of concepts from behavioral economics and social and behavioral science about motivation, behavior change, and external factors influencing behavior. Following an initial round of environmental scan interviews, we presented a revised draft of the framework at a second in-person meeting of the advisory board. Based on feedback and discussion, we made several subsequent iterations, culminating in a framework that generated consensus support from the stakeholder committee and several environmental scan participants. This project was determined to be "not research" by the Group Health Institutional Review Board.

2. Results

An overview of the action-planning framework is provided in Fig. 1 and supportive quotes from the environmental scan are found in Table 1. The model is based on observations that providers, care teams and patients can change practice together to reduce low-value care if conditions for change are present as presented in the first level of the framework. These conditions make it possible to have the sense-making conversations depicted in the second level of the framework,[12] where assumptions are challenged, the potential for harm created by overuse is recognized, and data on current measures of overuse are examined. These conversations can and should include providers on their own, providers and whole health care teams, and whenever

possible, care teams and patient representatives. These conversations lead to coordinated action to reduce unnecessary care as described in the third level of the framework.

2.1. Create conditions for change

Sustained behavior change is more likely if it is driven by providers themselves and if conditions that promote a new culture of medical practice are present. Attention to four domains creates these conditions and lead to more productive sense-making conversations described in the next section: prioritize addressing low-value care; build a culture of trust, innovation and improvement; develop shared language and purpose; and dedicate resources to data and measurement.

2.1.1. Prioritize the need to reduce low-value care

Providers and frontline staff face many competing demands for their time and effort, both to address both patient needs as well as larger organizational initiatives.[13,14] Successful organizations consistently communicate the importance of addressing low-value care through both words and actions. Examples of actions include scheduling protected time to meet for provider-only and team conversations; attendance of leadership at case conferences on overuse; soliciting ideas from providers and staff about opportunities to reduce low-value services; public recognition of provider-led initiatives to reduce overuse; engaging patients through patient-facing tools and resources about overuse and including patients in planning low-value care activities.

2.1.2. Build a culture of trust, innovation and improvement

Conversations about potentially harmful or overused services are more productive when all parties involved trust each other and are committed to improving the safety and effectiveness of the care they provide. In a culture of trust, conversations are non-judgmental and non-punitive, innovators are welcomed, and all share a vision of delivering care that is safe and effective.[15] Leaders and clinical champions create trust with transparent, inclusive management decisions. Providers, teams, and patients change culture through the expression of their concerns, values and needs, and through grassroots initiatives by clinical champions such as devoting time during traditional "grand rounds" to discuss case examples of overuse. The experiences of both the University of Utah Medical Center and the UCLA Medical Center are instructive in how organizations build this culture of trust, innovation and improvement.[16,17]

2.1.3. Establish a shared purpose and language

Conversations about overuse of low-value care may be new and reflect many different perspectives and disciplines. A shared understanding of the language used in conversations about low-value care can make them more productive. For example, discussions of the concept of "value" are perfectly acceptable in some settings, while in others the potential for harm or actual examples of overuse-related harm resonate more with providers and patients than discussions about value. Framing patient financial burden as a harm can also be a successful strategy to increase engagement. Harm can also be described at the population level as the overuse of a service can make it less accessible for patients who truly need it. Framing overuse as potential harm engages providers by appealing to their professionalism and commitment to care for each individual patient and "do no harm." It also expands the scope of professionalism to include societal good and resource stewardship, and it addresses the problem of "moral disengagement," or detaching oneself from the possibility that one's own actions could be causing harm that is distal to the action and often not observed.[18]

2.1.4. Commit resources to measurement

Providers often underestimate how often they deliver a specific service or may be unaware of how their ordering behavior compares
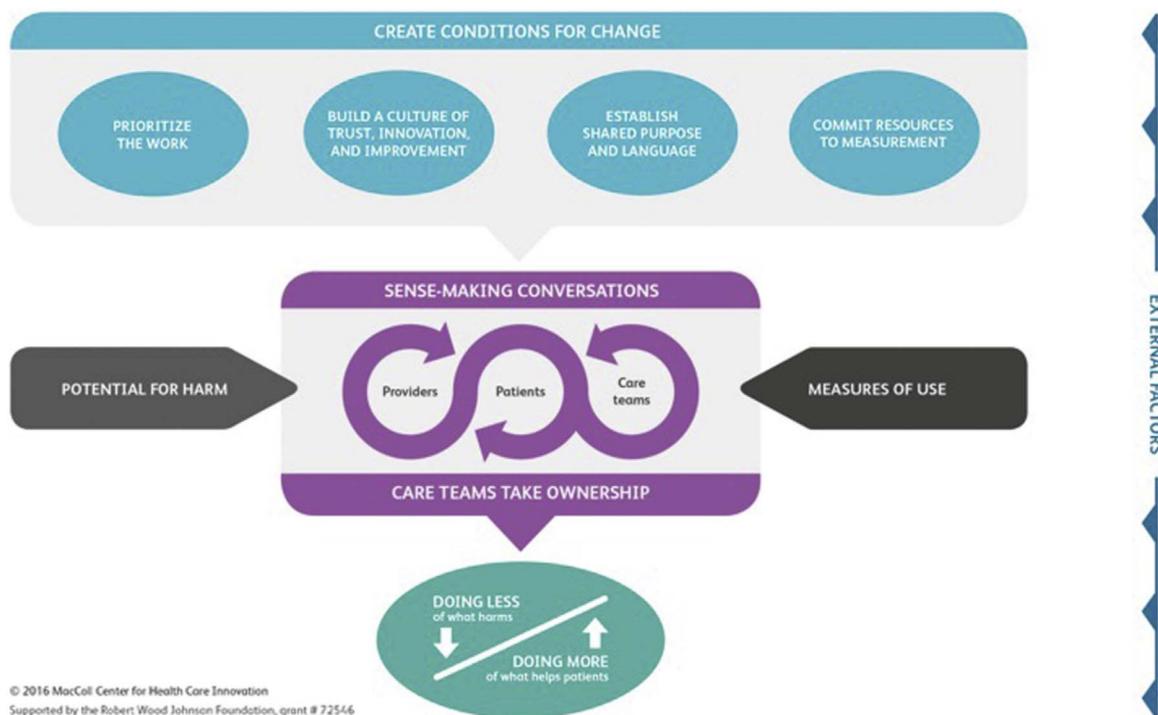
Fig. 1. Framework for Taking Action on Overuse: a graphic model depicting the action planning framework components as described in Table 1.

with their peers.[19] Recent reports on the use of low-value services at the provider level are essential for conversations and action. Many indicated the importance of providing transparent provider-level data on measures of use and its role in improving trust within peer discussions. Organizations interviewed in the environmental scan dedicated additional resources to develop and validate trusted and transparent measures of current overuse as well as training on how to take action based on the data. Examples of how to create and use peer-related actionable data on overuse can be found in a guide on reducing unwarranted variations in care published by the California Health Care Foundation.[20]

2.2. Providers, care teams and patients change practice together

2.2.1. Sense-making conversations among providers and care team members

Sense-making conversations are exchanges through which individuals think together as a group for the purpose of making sense of non-routine problems and coordinating individual behaviors to achieve their goals.[12] This conceptualization of how conversations influence change is grounded in sociolinguistic theory which describes a conversation as an act of social act of collaboration that is improvisational and results in making sense of often ambiguous cues when there is a high level of uncertainty.[21] As applied to the framework described here, these conversations allow individuals to "make sense" of the tension between the potential for harm that comes from overuse and provider or team-specific measures of current rates of use. These conversations create engaged providers and care teams who in turn create shared norms of behavior, shared language, and a shared vision for coordinated action around reducing overuse.[22,23]

Here's how sense-making conversations between providers and providers and the large health care team can help:

- Providers and teams come to a common understanding of how overuse can harm patients and examine data on how often they are using a service or treatment.
- Peer-to-peer discussions of prior behavior in a non-judgmental environment may lead to acknowledgment of the need to change

and that prior behavior may have led to harm, which can lead to resistance. Peer-to-peer discussions can overcome this resistance.
- Providers and teams identify the cultural norms, patient preferences, clinical workflows, or payment incentives that create barriers to reducing an overused test or treatment.
- By placing all these factors together in the context of patient harm, the continuation of overuse makes less sense and is harder to defend and the need for action to reduce overuse and its accompanying risks becomes more immediate and actionable.
- Conversations generate ideas about alternatives to overuse and ideas for how to implement them. Providers and staff also anticipate patients' concerns and rehearse "scripts" for addressing these concerns.

Sense-making conversations between providers and patients and their families provide an opportunity to discuss the potential for harm and explore alternative approaches that fit within patient values and preferences. These conversations also provide opportunities for providers and patients to share personal stories and create new narratives around patient harm and appropriate care. Here is how conversations between providers and patients help:

1. Patients can influence providers by asserting their care expectations and questioning the value of a low-value service.
2. Patients may express a strong preference for an overused service, creating an opportunity for conversation about patient goals and preferences and alternative options.
3. Conversations can take place by phone or email, not just during an office visit or at the patient bedside.

2.2.2. Potential for harm

Conversations about the potential for harm should be based on evidence. Combining data with patient stories was often described as an effective approach. Evidence can be internal to the organization or external, and these two sources were often combined. External findings on overuse of a service and its link to potential patient harm–including safety concerns, lack of benefit, or evidence of unnecessary use–usually come from peer-reviewed publications. Internal evidence may include

Table 1
Supportive quotes from environmental scan interviews.

Framework Concept	Supportive Quotes
Creating Conditions for Change	
Prioritize addressing low-value care	"*Leadership needs to endorse and empower individuals who can do change and give tools and endorsement needed to make change. Carrots and sticks don't work.*" "*We maintain a relentless focus on three organizational goals: patient experience, exceptional quality, and financial stewardship.*"
Build a culture of trust, improvement and innovation	"*This work requires a giant culture change. It can't be accomplished through a series of small initiatives. You can't just provide continuing education on a thousand things. The leadership needs to invest the resources necessary for major culture change.*"
Establish shared language and purpose	"*It is important to frame things in terms of reducing harm. This helps everyone understand. Physicians really want to reduce harm.*" "*We don't have any problem with the word "value." In fact, we need to describe what we do in terms of value, because that is what patients worry about.*"
Commit resources to measurement	"*Our number one challenge has been access to data. Having dedicated time to get datasets would be very helpful to improve this project.*" "*This provides a way to spend less money and get better outcomes. So it was easy for us to partner with the president's office, and for us to get leadership support to get the data we needed.*"
Providers, Care Teams and Patients Change Practice Together	
Sense-making conversations	"*It's not the data that changes people, it's the conversations about the data.*" "*…we remain quiet and let the [provider] group initiate the conversation after they show them the data. Their peers are in the room and it's a complete bottom-up process.*"
Potential for harm	"*We use numbers but even more powerfully we use the voice of the patient…it taps into the emotional aspect of the physicians, it causes us to stop and reflect.*" "*We had to be conscientious about how we presented the data. We needed to present the evidence base, and we needed to show that this overuse was causing patient harm.*"
Measures of use	"*We provided transparent feedback to all provider groups with provider-specific metrics on prescribing. This created natural competition among doctors….*" "*Physician engagement is all about the data. The data need to be meaningful: they need to be about the physicians themselves, and about their patients … The reason we got folks interested in this is because we provided them with meaningful data and gave them the opportunity to make a difference.*"
Encourage ownership	"*We believe that giving providers ownership of this work is the reason this initiative succeeded….*" "*The physician champion leads the small group to bring about the change. He or she talks to the people involved with the test in question, and figures out what sort of change will work for everyone.*"

quantitative results from monitoring protocol changes, or stories about harm experienced by a specific patient. These can be especially powerful as they often touch on the actions of multiple providers and describe the cascade of events that led to harm or a "near-miss" safety issue. It is also important to find an effective forum to disseminate these counter-narratives such as case-conferences, morning report, clinic huddles or grand rounds.

2.2.3. Provide measures on how often a test or treatment is used

When performance reports on current rates of use of a service by provider are shared among providers, they facilitate discussions about variation and appropriate use. These reports were often transparent with provider names on the reports. We often heard variations on a theme that was summed up by one interviewee: "*It is not the data that changes people; it is the conversation about the data.*" Front-line clinical leaders who are trained in using and understanding data should lead the discussion and create a safe environment for sharing the data transparently. It's critical that providers trust the measures and do not perceive that sharing provider-level performance is punitive. Data on measures of use also need to be actionable, that is, providers should leave a meeting with a clear idea of what they might do differently the next day. Frequently reporting measures of use promotes transparency and can motivate providers to track their individual and collective progress toward more appropriate use.

2.3. Encourage coordinated action and ownership by providers and care teams

When providers are engaged in reducing low-value care, they are more likely to embrace the problem as their own and drive ongoing change efforts. They will be motivated to reduce overuse because they feel it is the right thing to do (intrinsic motivation) not because they are being forced to (extrinsic motivation).[24] Organizations and leaders can encourage ownership by soliciting priority areas of overuse from front-line staff and providers, responding to their requests for reports and data, recognizing the work of front-line staff who have become clinical champions of de-implementation, and celebrating early successes across the organization.

2.4. External factors

Although factors external to a health care system or setting were identified as important and should be acknowledged, the framework is not intended to provide guidance on addressing these factors since health care systems often cannot influence them. These included factors such as local community standards of care,[25,26] the influence of professional colleagues through social networks,[27] the influence of media such as direct-to-consumer advertising,[28,29] and payment models with adverse incentives.[30] Even when many of these external factors are pushing in the opposite direction, success is possible when the components of the framework are in place. When external factors and the components of the action planning framework are working together, there is even greater potential for success.

3. Conclusions

Reducing the use of low-value services is not just doing less of what harms, it also creates opportunities to focus on doing more of what truly helps patients. Organizations looking to leverage such opportunities can use this framework to prioritize and continually support initiatives to reduce low-value care, creating an organizational climate that can address problems of underuse, misuse, and overuse equally well. This framework encourages health care organizations to use transparent data to chart the progress of current initiatives and explore new areas of work. It incorporates patients as partners in improvement, and promotes a culture of open communication. It is designed to be scalable in its use from small single-specialty practices to regional collaboratives involving multiple health care systems. It is intended to be used, shared, and continually adapted as part of a wider movement to reduce health care costs, advance health care quality, and improve patient outcomes.

Members of stakeholder advisory committee

David A. Asch, MD, MBA; David Au, MD, MS; Karen Cox, RN, PhD; Darren A. DeWalt, MD, MPH; Mary Beth Dyer, MPP; Margaret Flinter,

APRN, PhD; Craig Jones, MD; Steven Kaufman, MD; Linda Kinsinger, MD, MPH; Sarah E. Kucharski, MA; Thomas H. Lee, MD; Kelly Rand, MA.

Conflict of Interest

Acknowledgements

References

1 Colla CH, Mainor AJ, Hargreaves C, Sequist T, Morden N. *Interventions Aimed at Reducing Use of Low-Value Health Services: A Systematic Review*. Lebanon, NH: The Dartmouth Institute for Health Policy & Clinical Practice.

2 Buist D, Collado M. *Promoting the Appropriate Use of Health Care Services: Research and Policy Priorities*. ABIM Foundation, AcademyHealth; 2014.

3 Burns M, Dyer MB, Bailit M. *Reducing Overuse and Misuse: State Strategies to Improve Quality and Cost of Health Care*. Bailit Health Purchasing, Robert Wood Johnson Foundation; 2014.

4 Chassin MR, Galvin RW. The urgent need to improve health care quality. institute of medicine national roundtable on health care quality. *JAMA*. 1998;280(11):1000–1005.

5 Davidoff F. On the undiffusion of established practices. *JAMA Intern Med*. 2015;175(5):809–811.

6 Roman BR, Asch DA. Faded promises: the challenge of deadopting low-value care. *Ann Intern Med*. 2014;161(2):149–150.

7 Ubel PA, Asch DA. Creating value in health by understanding and overcoming resistance to de-innovation. *Health Aff*. 2015;34(2):239–244.

8 Gonzales R, Cattamanchi A. Changing clinician behavior when less is more. *JAMA Intern Med*. 2015;175(12):1921–1922.

9 Prasad V, Ioannidis JP. Evidence-based de-implementation for contradicted, unproven, and aspiring healthcare practices. *Implement Sci*. 2014;9:1.

10 Judson TJ, Volpp KG, Detsky AS. Harnessing the right combination of extrinsic and intrinsic motivation to change physician behavior. *JAMA*. 2015;314(21):2233–2234.

11 NB Henrikson, PR Blasi, B Austin, et al. *Social and Behavioral Science Constructs to Support Provider Engagement in Low-value Care: A Literature Review*. [In preparation].

12 Jordan ME, Lanham HJ, Crabtree BF, et al. The role of conversation in health care interventions: enabling sensemaking and learning. *Implement Sci*. 2009;4:15.

13 Parchman ML, Pugh JA, Romero RL, Bowers KW. Competing demands or clinical inertia: the case of elevated glycosylated hemoglobin. *Ann Fam Med*. 2007;5(3):196–201.

14 Jaen CR, Stange KC, Nutting PA. Competing demands of primary care: a model for the delivery of clinical preventive services. *J Fam Pract*. 1994;38(2):166–171.

15 Lanham HJ, Palmer RF, Leykum LK, et al. Trust and reflection in primary care practice redesign. *Health Serv Res*. 2015.

16 Lee VS, Miller T, Daniels C, Paine M, Gresh B, Betz AL. Creating the exceptional patient experience in one academic health system. *Acad Med*. 2016;91(3):338–344.

17 Clarke R, Hackbarth AS, Saigal C, Skootsky SA. Building the infrastructure for value at UCLA: engaging clinicians and developing patient-centric measurement. *Acad Med*. 2015;90(10):1368–1372.

18 Bandura A, Barbaranelli C, Caprara GV, Pastorelli C. Mechanisms of moral disengagement in the exercise of moral agency. *J Personal Soc Psychol*. 1996;71(2):364–374.

19 Kiefe CI, Allison JJ, Williams OD, Person SD, Weaver MT, Weissman NW. Improving quality improvement using achievable benchmarks for physician feedback: a randomized controlled trial. *JAMA*. 2001;285(22):2871–2879.

20 Castano C, Love M, van Duren M, Shapiro L, Clarke R, Beckman H. Working In Concert: *A How-to Guide To Reducing Unwarranted Variation In Car*e:7–8. ⟨http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/PDF%20W/PDF%20WorkingInConcertReducingVariations.pdf⟩; 2014 Accessed 06.09.16.

21 Olesen SP, Erickson F. Talk and social theory: ecologies of speaking and listening in everyday life. *JSTOR*. 2006.

22 McAllister C, Leykum LK, Lanham H, et al. Relationships within inpatient physician housestaff teams and their association with hospitalized patient outcomes. *J Hosp Med*. 2014;9(12):764–771.

23 Lanham HJ, McDanielJr. RR, Crabtree BF, et al. How improving practice relationships among clinicians and nonclinicians can improve quality in primary care. *Jt Comm J Qual Patient Saf*. 2009;35(9):457–466.

24 Lee TH, Cosgrove T. Engaging doctors in the health care revolution. *Harv Bus Rev*. 2014;92(6):104–111 138.

25 Madara JL, Burkhart J. Professionalism, self-regulation, and motivation: how did health care get this so wrong?. *JAMA*. 2015;313(18):1793–1794.

26 Wang MT, Gamble G, Grey A. Responses of specialist societies to evidence for reversal of practice. *JAMA Intern Med*. 2015;175(5):845–848.

27 Greenhalgh T, Robert G, Macfarlane F, Bate P, Kyriakidou O. Diffusion of innovations in service organizations: systematic review and recommendations. *Milbank Q*. 2004;82(4):581–629.

28 Du X, FreemanJr. DH, Syblik DA. What drove changes in the use of breast conserving surgery since the early 1980s? The role of the clinical trial, celebrity action and an NIH consensus statement. *Breast Cancer Res Treat*. 2000;62(1):71–79.

29 Mello MM, Brennan TA. The controversy over high-dose chemotherapy with autologous bone marrow transplant for breast cancer. *Health Aff*. 2001;20(5):101–117.

30 Colla CH. Swimming against the current–what might work to reduce low-value care?. *New Engl J Med*. 2014;371(14):1280–1283.