

Adding Patient-Reported Outcomes to Medicare's Oncology Value-Based Payment Model

Ethan Basch, MD, MSc
Lineberger
Comprehensive Cancer
Center, University of
North Carolina, Chapel
Hill; and Associate
Editor, *JAMA*.

Lalan Wilfong, MD
Value-Based Care and
Quality Programs,
Texas Oncology, Dallas.

**Deborah Schrag, MD,
MPH**
Associate Editor, *JAMA*;
and Dana-Farber
Cancer Institute,
Harvard Medical
School, Boston,
Massachusetts.

On November 1, 2019, the Centers for Medicare & Medicaid Services (CMS) Innovation Center released details of a proposed alternative payment model for medical oncology care, called Oncology Care First (OCF), for public comment.¹ The OCF model will succeed the Oncology Care Model (OCM), which will expire at the end of 2020. When it started in 2016, the OCM, which was voluntary, was important in oncology due to its emphasis on value-based care transformation.

The OCM requires practices to implement the following care transformation activities for patients receiving systemic cancer treatment: (1) 24/7 patient access to a clinician who can view the medical record; (2) patient navigation services; (3) documentation of a care plan that contains all components of the National Academy of Medicine's Care Management Plan; (4) delivery of guideline-recommended care; (5) use of a federally certified electronic health record system; and (6) use of data for continuous quality improvement. There are currently 140 participating practices, which represents about 10% of US oncology practices. Because some of the largest multisite community and academic networks in the country are included, this represents about 25% of patients receiving systemic cancer treatment in the United States.

Recognizing that care enhancements can be expensive and cumbersome to implement, the CMS provides OCM practices with upfront monthly payments of \$160, in addition to standard fee-for-service, for each patient receiving systemic cancer treatment (chemotherapy, immunotherapy, targeted therapy, or hormonal treatment). Practices can use these funds to support care transformation by hiring patient navigators, social workers, and care coordinators; building acute care alternatives to the emergency department; implementing treatment pathway programs; and creating or licensing software for population management.²

Practices are incentivized to reduce costs of care via shared savings based on benchmark prices and quality measurement. Although it is still early, there is some evidence that the OCM features have led to reduced emergency department visits, intensive care unit admissions, and hospitalizations at the end of life,³ which provide value and improve the patient experience. The early experience with the OCM also reveals how difficult it is to actualize care transformation because it requires changes in technology, patient engagement, communications, personnel, workflow, data reporting, and perhaps at the most fundamental level, a change in culture and mindset.

Building on the success of the OCM, the CMS structured the OCF model as a capitated model with upfront

bundled population payments to cover both physician evaluation and management services and all the care enhancements included in the OCM, plus one additional, new requirement: implementation of patient-reported outcomes for symptom monitoring during cancer treatment. Patient-reported outcomes in this context encompass serial patient surveys that systematically screen for symptoms and impaired physical function or mental health. Surveys on patient-reported outcomes can be administered electronically during or between visits via stand-alone software platforms or through the patient portals of some electronic health record systems, with real-time alerts triggered to the care team to prompt outreach with interventions for severe or worsening symptoms.

Including patient-reported outcomes in cancer care is important for several reasons. More than 1.6 million people are diagnosed with cancer in the United States each year. The majority of patients receiving cancer treatment experience symptoms that interfere with daily functioning, and symptoms are a major driver of preventable emergency department visits; yet, clinicians substantially underdetect the symptom burdens of their patients.⁴ Research demonstrates that proactively screening for patient-reported outcomes significantly improves symptom detection and control, quality of life, communication, and satisfaction with care; reduces emergency department and hospital visits; improves tolerability of chemotherapy; and improves overall survival.⁵⁻⁷

Moreover, reports on patient-reported outcomes can be aggregated to provide context and essential detail for comparative-effectiveness research, pragmatic trials, quality assessment, and safety surveillance of drugs. The absence of patient-reported information from clinical practice has been a missing piece for many of these areas. This gap prevents clinicians from answering fundamental questions patients want to know when making a treatment decision: "How much better do patients like me feel with this treatment?" or its corollary, "How poorly do patients like me typically feel?"

An additional benefit of patient-reported outcomes software systems is that they can efficiently collect information about social determinants of health, food security, health behaviors, financial distress, and treatment adherence, thereby enabling customization of care to the needs of individual patients. The proposed OCF model incentivizes adoption of patient-reported outcomes systems and has the potential to further align oncology practice with what matters to patients, payers, and the public.

At a public session held by the CMS on November 4, 2019, several current participants in the OCM emphasized that the model design and payments should

Corresponding

Author: Ethan Basch, MD, MSc, Lineberger Comprehensive Cancer Center, University of North Carolina, 170 Manning Dr, CB 7305, Chapel Hill, NC 27599 (ebasch@med.unc.edu).

consider the logistical challenges and costs of implementing patient-reported outcomes systems. Unlike the other care enhancements, implementation of patient-reported outcomes requires participation by the patient. For a patient-reported outcomes program to succeed, patients must be successfully and durably engaged. Workflow must be modified to integrate patient-reported data into symptom management and triage processes, which vary from practice to practice.

New technology is required, and potentially new or redeployed administrative staff will be required to train patients and triage patient-reported outcomes information to navigators, clinicians, or both. There is a risk that patients will not engage in the reporting systems, thereby limiting the attempts of a practice to meet the OCF model requirements.

Perhaps the greatest barrier to uptake is entrenched professional culture. This is unfamiliar territory for many practices. Clinicians understand how to hire care coordinators or implement chemotherapy pathways because these are modifications of existing processes. But engaging patients in the reporting systems is likely to be disruptive to common concepts of care delivery.

These challenges underline the vital role of including patient-reported outcomes as a specified care enhancement in the OCF model. As an analog, when new drugs or biomarkers are approved, clinicians do not expect they will be adopted until reimbursement and training are provided. Mandating implementation of patient-reported outcomes is not enough and alone could result in poor uptake by patients and clinicians. Practices will need some coaching and guidance in how to restructure workflow, deploy staff, train and retain patients, and select and administer patient-reported outcomes questionnaires and software. These considerations are all consistent with established principles of population health management.

Ideally, the CMS would specify a library of patient-reported outcomes questionnaires that are acceptable for use in the model based on psychometric testing in cancer populations, availability of salient questions, and public availability. Current examples for symptoms and physical function include the National Cancer Institute's Patient-Reported Outcomes version of the Common

Terminology Criteria for Adverse Events (PRO-CTCAE) and the Patient-Reported Outcomes Measurement Information System (PROMIS) and the Patient Health Questionnaire (PHQ) for depression. A mechanism to review and add other tools to assess outcomes would be helpful.

The CMS is wisely requiring a "gradual" uptake, recognizing the learning curve for this area. In addition, the CMS should consider providing discrete funding to practices for patient-reported outcomes implementation during the initiation process of the model and when new technology and staff redeployments are necessary, given the additional challenges of this unique care transformation. There have been anecdotal reports of poor uptake of patient-reported outcomes systems in some single institutions that had inadequate resources and planning during implementation, validating clinicians' initial hesitations. But there is evidence that when implemented well using the above strategies and sufficient resources, most patients and clinicians are willing, able, and enthusiastic to participate, including patients who are quite ill, close to death, or in hospice; those living in rural areas; and those with low health and computer literacy.

Although some practices or clinicians may express hesitation that implementing patient-reported outcomes systems is too difficult or unnecessary, evidence supports clinical integration as a meaningful and beneficial strategy to attend to patients' needs. Other agencies have already embraced patient-reported outcomes including the US Food and Drug Administration in its Patient-Focused Drug Development Program, and the National Quality Forum through endorsement of Patient-Reported Outcome Performance Measures.

The CMS has taken an important step in helping to lead practice transformation by rewarding practices that systematically engage patients and make it seamless for clinicians to respond to their problems. Although it may take several iterations to get the details worked out, this bold step lays the groundwork for aligning reimbursement with patients' well-being. In addition, adoption of systems that reward clinicians who track and react to symptoms could have spillover effects to patients who are not covered by Medicare, and to those with chronic conditions beyond cancer.

ARTICLE INFORMATION

Published Online: January 2, 2020.
doi:10.1001/jama.2019.19970

Conflict of Interest Disclosures: Dr Basch reported receiving grants from the National Cancer Institute and the Patient-Centered Outcomes Research Institute; and receiving personal fees from Memorial Sloan Kettering Cancer Center, the Research Triangle Institute, CareVive Systems, Sivan Healthcare, Navigating Cancer, and Self Care Catalysts. Dr Wilfong reported receiving personal fees from McKesson Specialty Health, Pfizer, and Genentech. Dr Schrag reported receiving grants from the National Cancer Institute, the Patient-Centered Outcomes Research Institute, and the American Association for Cancer Research; receiving personal fees from Pfizer; and receiving nonfinancial support from Grail.

REFERENCES

- Centers for Medicare & Medicaid Services. Informal request for information on proposed Oncology Care First model. <https://innovation.cms.gov/Files/x/ocf-informalrfi.pdf>. Accessed November 14, 2019.
- Kline RM, Brown M, Buescher N, et al. The Centers for Medicare & Medicaid Services Oncology Care Model halfway through—perspectives from diverse participants. *J Natl Cancer Inst*. 2019;djz072. doi:10.1093/jnci/djz072
- Brooks GA, Jhatakia S, Tripp A, et al. Early findings from the oncology care model evaluation. *J Oncol Pract*. 2019;15(10):e888-e896. doi:10.1200/JOP.19.00265
- Fromme EK, Eilers KM, Mori M, Hsieh YC, Beer TM. How accurate is clinician reporting of chemotherapy adverse effects? a comparison with patient-reported symptoms from the Quality-of-Life Questionnaire C30. *J Clin Oncol*. 2004;22(17):3485-3490. doi:10.1200/JCO.2004.03.025
- Kotronoulas G, Kearney N, Maguire R, et al. What is the value of the routine use of patient-reported outcome measures toward improvement of patient outcomes, processes of care, and health service outcomes in cancer care? a systematic review of controlled trials. *J Clin Oncol*. 2014;32(14):1480-1501. doi:10.1200/JCO.2013.53.5948
- Basch E, Deal AM, Dueck AC, et al. Overall survival results of a trial assessing patient-reported outcomes for symptom monitoring during routine cancer treatment. *JAMA*. 2019;321(2):197-198. doi:10.1001/jama.2017.7156
- Denis F, Basch E, Septans AL, et al. Two-year survival comparing web-based symptom monitoring vs routine surveillance following treatment for lung cancer. *JAMA*. 2019;321(3):306-307. doi:10.1001/jama.2018.18085