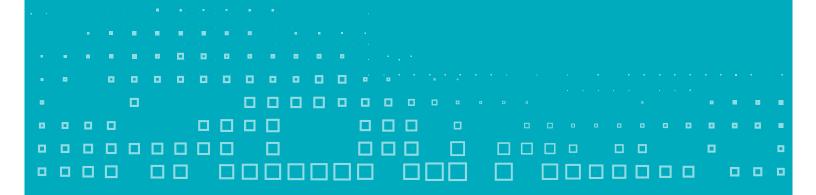
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Positioning for Value-Based Cancer Care

Lessons and Opportunities for Health Systems and Oncology Service Lines

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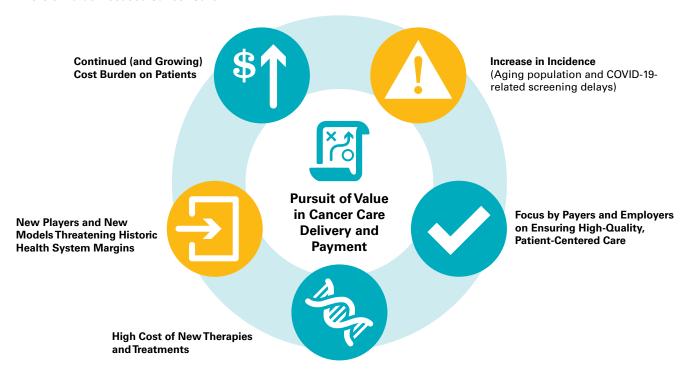
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I. Introduction

The last 20 years have brought tremendous progress in cancer outcomes with improved screening and new treatments such as immunotherapy, but with these innovations and our country's aging population, escalating care costs and quality variation continue to confound the system. As public and private payers seek a chassis for high-quality, equitable and affordable cancer treatment in the future, efforts to pursue value-based approaches have occurred in a halting fashion, challenging providers and payers to navigate this evolution. However, there are strategies that health systems and oncology service lines can pursue today that will be beneficial in the current primarily fee-for-service environment while serving as preparation for a value-based future.

The American Society of Clinical Oncology defines value for cancer care as a combination of clinical benefit, side effects and improvement in patient symptoms or quality of life in the context of cost.1 Many factors contribute to the drive toward value-based cancer care, but perhaps the most significant relate to rising cost and evidence that a sizable portion of cancer patients fail to receive care in concordance with treatment guidelines.² U.S. cancer-related health care costs are expected to grow by 34% between 2015 and 2030, to \$246 billion.3 This escalation will be driven by a number of factors. Cancer is the second-leading cause of death in the United States, behind heart disease.4 The National Cancer Institute estimates that roughly 1.9 million Americans were diagnosed with cancer in 2021,5 and there are nearly 17 million and growing cancer survivors in the United States, 6 many of whom may have related health complications from their treatment. A rapidly aging population coupled with high and rising treatment costs will accelerate overall cost growth. These escalating costs pose a significant burden to the overall health care system, employers and individuals. High out-of-pocket costs for often expensive cancer treatments affect medication adherence and access to care for millions of Americans. In addition, managing cost and quality is complicated by the frequent need for multimodal care provided by many specialists and by variable approaches to using and covering precision medicine (e.g., molecular testing, next-generation sequencing).8 With hundreds of types of cancer in existence, providers and payers are challenged with keeping up with the latest developments, many of which require high-cost treatments.

Drivers of Value-Focused Cancer Care



In response to these drivers, health care payers and providers have been experimenting with episode-based bundles, global payments and shared-savings models to try to improve cost effectiveness in cancer care. However, in addition to being challenging to implement, these models' effectiveness in advancing value has not been clearly demonstrated, so adoption has been slow.

In late June 2022, the Center for Medicare & Medicaid Innovation (CMMI) launched the Enhancing Oncology Model (EOM), an alternative payment model seeking to incentivize providers in oncology practices to provide "whole person care," including screenings for health-related social needs, services to help patients navigate their cancer care needs, care planning, soliciting patient-reported outcomes data and other activities that promote health equity. EOM is a voluntary program slated to launch in 2023; participating practices will receive a monthly payment to provide "enhanced" services for assigned beneficiaries and will have an opportunity to receive incentives or shared savings for retrospective quality and cost performance. This new model continues the Centers for Medicare & Medicaid Services' (CMS) commitment to pursuing value in cancer care and reinforces the need for providers to continue to implement programs.

Other examples of how CMS, commercial payers and employers are seeking to advance alternate payment models for cancer care are described in the Appendix. With the ongoing shift toward value-based reimbursement, the challenge will be how to contain costs while maintaining a consistent level of highquality cancer care across patient populations.

Strategies for Health System-Based Cancer Programs to Navigate the Value Environment

A shift toward value will require a significant reorganization of care delivery across the continuum from risk assessment, prevention and screening through treatment, surveillance and survivorship to palliative care and end-of-life care.^{10,11} Providers can prepare for this by developing strategies that are beneficial in the current environment while building capacity for the future and piloting initiatives with manageable risk. Focusing on the four most common cancers and the costs that are able to be influenced by physicians and their clinical practice offers the opportunity for greatest impact.¹² As the burden of managing care and cost shifts to providers, these strategies will be critical for their success in a value environment while delivering benefit as they straddle the transition toward this future value state.

Strategic Levers for Success in Value-Based Care

Care Team



- Align multispecialty clinical teams (care coordination and economics)
- · Redefine care teams

Analytics



- · Integrate internal data across the organization and providers
- Participate in benchmarking networks
- Adopt and refine cancer clinical pathways

Clinical Settings



- Build and refine ambulatory capabilities in more convenient access locations
- Continue to develop and implement telehealth solutions
- Advance hospital- and clinicat-home programs

Clinical Practice



- · Establish accessible screening and diagnosis services
- · Promote cost-effective and appropriate use of cancer drugs and molecular testing
- Advance early palliative care and shared decision-making
- · Implement strategies to reduce ICU use
- · Assess and address patient social drivers of health needs and barriers

Restructuring Care Teams for Value

Align multispecialty clinical teams. Physician engagement and economic alignment across cancer specialty physicians and with primary care physicians are the top priorities for coordinated and efficient value-based cancer care. Hospital strategies to engage providers across specialties in planning and implementation and sharing data on quality and cost are critical.13 For economic alignment, common employment or models for clinical integration are needed to promote evidence-based care and to track and optimize overall financial performance. Alignment alone is not sufficient, as an infrastructure to support an integrated care delivery model for quality and value goals is needed.

Redesign care teams. Cancer care teams will have to be reconstituted to ensure care is delivered in the most cost-effective settings by the most cost-effective providers. Establishing a clinical practice model that has staff working at the top of their license will require increased utilization of Advanced Practice Providers (APPs) and expanded roles for nurses. APPs in oncology are being used to cover inpatient services, for symptom management and urgent care, to support outpatient oncology practices for patient follow-up visits, and for palliative care and specialized programs such as high-risk breast and survivorship clinics. The creation of new roles for frontline staff who can engage with patients as care coordinators and navigators is a model for relieving clinical staff of nonclinical tasks so they can spend more time addressing complex patient care needs with some sites, such as University of North Carolina (UNC) Lineberger Cancer Center, using volunteer navigators for a cost-effective approach. The use of navigators has demonstrated a reduction in health care resources, including utilization of intensive care and emergency department (ED) services.14

UNC Health System: Using Lay Navigators to Support the Clinical Team

In addition to having complex clinical needs, cancer patients have many nonclinical needs that require staff support and add to the staff's workload. Recognizing this issue facing staff across their statewide network, Jean Sellers, nursing director for the UNC Lineberger Cancer Center, developed a model for lay volunteer navigators. The center received a grant from the Duke endowment and has now implemented the program in ten cancer locations. Key to the program is extensive training. Many of the volunteers are retirees from jobs in health care. They provide logistical support such as transportation and/or connecting patients to services or resources; they also have time to spend with patients and their caregivers. The program allows the clinical staff to work at the top of their license while ensuring patient needs are met.15

Better Integrating and Disseminating Complex Internal and External Data

Integrate internal data across the organization and providers. Health systems that mine and disseminate robust internal data on clinical costs, care quality and outcomes (including patientreported outcomes) by specific diagnosis can support their cancer teams in addressing issues and driving change toward value such as in an approach used by Advocate Health Care.

Participate in benchmarking networks.

Participation in networks or programs such as American Society of Clinical Oncology (ASCO) CancerLinQ, Flatiron Health and COTA offer large databases and advanced data analytics to providers seeking real-world evidence to compare patient outcomes. COTA has added cost data with very refined diagnostic groupings that enable comparisons for similar patients. A recent study using COTA analytics showed the cost variation for similar lung cancer patients ranging from \$44,000 to \$444,000.16 While not oncology-specific at this time, Epic's Cosmos searchable electronic medical records (EMR) database, with over 115 million patient records and growing, offers real-time benchmarking data for providers.¹⁷

Advocate Health Care: Using Data to Engage Clinicians in Value **Initiatives**

Advocate Health Care, with over 20,000 new cancer cases annually, engaged cancer providers in its clinically integrated network (CIN) in a value-preparation initiative that was a simulation exercise with 103 medical oncologists managing the care of a lung and breast cancer patient over a four-month period using a clinical performance and value platform. The exercise showed wide variation in care but with a subsequent intervention of providing serial feedback to the physicians on quality, outcomes and cost with education support, variation was reduced, and there were significant changes in clinical practices (e.g., increase in palliative care, reduced imaging studies). While this was a simulation, it shows the value of data and engaging physicians.18

Adopt and refine cancer clinical pathways. For hospitals with multiple care delivery locations and providers, especially with a mix of generalists, clinical pathways are a valuable tool for reducing variation in care. While treatment cost has not been included in many of the current products, there is value in their inclusion in future clinical pathway tools—particularly oncology drug costs, accompanied by data on their cost-effectiveness.¹⁹

Accelerating the Delivery of Cancer Care Outside Hospital and Clinic Settings

Build and refine ambulatory capabilities in more convenient access locations. With advances in medicine continuing to drive less invasive and less toxic therapies, the shift of cancer care delivery to ambulatory settings will continue at pace. Leading practice is to build comprehensive ambulatory locations in accessible locations, delivering multispecialty disease site care with infusion, radiation therapy, ambulatory surgery

and imaging available on-site. Developing ambulatory sites in communities beyond the hospital enables providers to offer patients more convenient and often lower-cost care options as compared to hospital-based services and enables them to better reach historically under-resourced populations.

Continue to develop telehealth solutions. This trend, accelerated in response to COVID-19, has been shown to be a useful tool to ease the burden on patients and improve access. Access to subspecialty cancer care—especially for rarer cancers—often requires significant travel, which is more challenging for patients with fewer resources, for families with young children and for those concerned about taking time off from work. While travel can't be eliminated, telehealth has reduced it significantly. While evaluations have been largely focused on quantitative measures on the use of telehealth, recent studies further evaluate qualitative measures to understand utilization, barriers, and the patient and provider experience. Initial findings show that while telehealth utilization has increased, there is less utilization for underrepresented populations, that multiple technology platforms are a barrier for patients and that subsets of patients prefer telephone consults to video. For cancer, telehealth has been effective for symptom management and for services that typically experience a high no-show rate (e.g., palliative care, psychosocial care, and monitoring patients on clinical trials, especially quality-of-life trials). New studies are evaluating provider preferences for the types of visits that are most appropriate for cancer patients.

Advance hospital- and clinic-at-home programs. Care "anywhere but the hospital" should be expanded with innovative programs to manage care or symptoms at home. This requires building a dedicated oncology home care team with APPs, nurses, pharmacists and other support personnel who closely coordinate care with oncologists and the use of technology (i.e., telemedicine, remote monitoring, wearables). Some examples include:

- Short-duration home care. Hospital cancer programs should work with an internal home care team or establish a partnership to set up a short-duration, home-based program to manage the resolution of symptoms at home—such as nausea, pain and dehydration—rather than in the hospital.
- Home chemotherapy. Despite specialty infusion companies entering this market and CVS' new subsidiary, Coram, providing chemotherapy and immunotherapy for patients at home, hospitals continue to be cautious in this space. An early adopter is The University of Pennsylvania's Abramson Cancer Center with its 2019 launch of the Cancer Care @ Home program to offer home infusion chemotherapy treatments for its patients as a value strategy. While the financial advantages for hospitals are very limited in the near term, especially with 340B programs, and setting up these programs is a new and very different business for cancer programs, there is increasing pressure

New England Life Care: Home Chemotherapy

New England Life Care is a not-for-profit home infusion and specialty pharmacy company with 50 providers as members. They are able to provide a large and increasing number of chemotherapy treatments in the home as well as a full range of other types of infusion. Their membership includes clinically integrated networks (CINs) with incentives to manage cancer costs. During COVID, the use of home chemotherapy increased, and that trend is expected to continue based on patient and provider satisfaction.20

from payers and from physician-hospital organizations, clinically integrated networks (CINs) and other similar vehicles that assume risk to offer this service for patients. Hospital cancer programs and physician groups—especially those with full-risk contracts—should begin to explore setting up these programs and consider pilots for patients for whom coming to the hospital infusion center is a challenge.

 Outpatient bone marrow transplants (BMTs). BMTs typically have associated hospital stays of several weeks. An early adopter of outpatient and home-based BMT programs in the United States was Duke, and the program has significantly reduced the cost of care since launched in 2014.²¹ This trend is slow to be adopted by hospitals, as there is little financial incentive in the present environment, but it is a value opportunity for hospitals to plan for and pursue with payers, especially for autologous transplants.

Transforming High-Impact Clinical Practices

Establish accessible screening and diagnosis

services. Accessible screening services, particularly for some of the most common cancers-such as cervical, colorectal, breast and lung-allow providers to find these cancers at an early stage, when treatment is most effective. The disruptions imposed by the COVID-19 pandemic on Americans' health care services highlight this need. For example, cancer screenings dropped by 56%–85% for the four most prevalent cancers in spring to early summer of 2020 and incidence of late-stage presentation of colorectal and breast cancers increased between the beginning of the pandemic through 2020.23,24 As the U.S. health care system continues to wrestle with COVID-19 impacts, it is important to re-engage patients in regular screenings built into the standard care model. Screening also presents providers an opportunity to work with higher-risk patients on changing behaviors to support healthier futures. To ensure broad access to screening, provider organizations can work to address barriers, such as conducting rural outreach and establishing inner-city screening initiatives.

Promote cost-effective and appropriate use of cancer drugs and molecular testing. The rapid development of new high-cost cancer drugs²⁵ and molecular tests is placing a significant financial burden on patients and providers. Providers must be proactive in assessing the cost-effectiveness of drugs that are included on their formulary and managing

Memorial Sloan Kettering: Addressing the High Cost of Cancer Drugs

Dr. Peter Bach, director of Memorial Sloan Kettering's (MSK) Center for Health Policy and Outcomes, has led efforts to increase understanding of the U.S. drug development process and develop new models for drug pricing that include value to patients. He observed a 100-fold increase in cancer drug prices since 1965 after adjusting for inflation and found that the cost of an additional year of life from a cancer treatment increases by \$8,500 each year. In 2012, he and other physicians at MSK drew attention to the high price of a newly approved cancer drug and announced MSK's unprecedented move not to offer it to patients because of its high price tag with no notable improved clinical outcomes. The drug price was later cut in half by the manufacturer. MSK's Drug Pricing Lab recently found that the prices for most of the highest-performing drugs for the top pharmaceutical manufacturers in 2019 exceeded a \$150,000 cost-per-QALY (quality-adjusted life-year) threshold.22

drug-prescribing practices. Many payers are also addressing this issue through a pre-authorization process. In parallel, hospital cancer programs should develop plans and processes to ensure appropriate ordering practices for molecular testing, with strategies such as test panels by disease site, the use of molecular tumor boards to advise physicians and coordination with pathology to ensure cost-effective sources for this testing. Studies are being conducted on the clinical utility of molecular testing and the extent to which it is used to inform treatment.26

Advance early palliative care and shared decision-making. Palliative care has been shown to be associated with deaths not occurring in an acute care setting and reduced hospital admissions and ED visits.²⁷ Palliative care should be integrated into clinical pathways and the outpatient setting. It is important to begin early in a patient's diagnosis, especially for stage 4 patients, to ensure that there is a focus on quality of life and symptom management and that the patient is engaged in decision-making about the course of their treatment. Such programs should include telehealth and home-based palliative care services that can reduce ED visits and admissions.

Reduce use of intensive care units (ICUs) for cancer patients. ASCO Quality Oncology Practice Initiative (QOPI), Vizient and others have quality measures that track ICU days in the last 30 days of life. Hospitals need to be more proactive in analyzing this data to identify risk factors for the development of upstream interventions (e.g., when there is no caregiver support at home, addressing other social drivers of health (SDOH)) and to coordinate with physicians to influence practice patterns, such as early referrals to palliative care and hospice care, before a hospital or ICU admission.²⁸

Assess and address issues related to the SDOH on cancer patients. SDOH are a significant factor in cancer care, particularly related to late diagnosis, compliance with treatment, long lengths of stay, and readmissions or ED visits. Cancer programs need to expand their efforts to identify patients at higher risk (e.g., use of ICD-10 Z codes or other electronic means of patient risk stratification) so individualized plans can be developed to better support them through treatment and survivorship with issues such as food or housing insecurity.^{29,30}

III. Conclusion

The challenge in the short term for providers is to prepare for value within the current reimbursement environment. However, with CMS pressing ahead with the new EOM, it is clear that expectations for value will continue to grow. Many of the strategies outlined can be beneficial today while building capacity for success in a future value environment—one that enables funding for prevention, equity and patient-centered care across the continuum.

IV. Appendix

Recent Centers for Medicare & Medicaid Services (CMS) Initiatives to Promote Value in Cancer Care

Program*	Description	Implications for Providers
Enhancing Oncology Model (EOM)	Expected to launch in July 2023 as a voluntary five-year model test, EOM will focus on value-based, patient-centered care for cancer patients undergoing chemotherapy based on six-month episodes of care, with a specific focus on health equity. It includes: • Screenings for health-related social needs • Development of reports on expenditure and utilization patterns of patient populations to identify and address health disparities • Services to help patients navigate their cancer care needs, care planning • Solicitations of patient-reported outcomes data • Other planning efforts focused on advancing health equity Participating practices will receive a monthly payment to provide "enhanced" services for assigned beneficiaries and will have an opportunity to receive incentives or shared savings for retrospective quality and cost performance, particularly for patients who are dually eligible for Medicare and Medicaid. ³¹	Building on the Oncology Care Model (OCM) (described below), this is a new opportunity for providers to apply population-based models to pursue value and address disparities in the cancer care they deliver. With applications due at the end of September 2022, interested providers must initiate planning now.
ОСМ	Tested from 2016 to 2022, OCM was an episode-based Alternative Payment Model (APM) for 126 participating oncology practices with a goal of reducing Medicare spending and improving quality. OCM used a two-part payment system: a per-beneficiary Monthly Enhanced Oncology Services payment of \$160 for the duration of the care episode and the potential for a performance-based payment for episodes of chemotherapy care. Providers received detailed claims data benchmarked to other participants. While this model modestly reduced total episode payments relative to comparison episodes, the combined monthly and incentive payments exceeded savings to CMS. ³²	Findings were to inform plans for future programs. ³³
Chemotherapy Measure OP-35	This introduces penalties for admissions or ED visits within 30 days of chemotherapy for a specific set of symptoms or conditions (e.g., anemia, dehydration, fever, nausea, pain, sepsis). ³⁴	Providers will need to enhance clinical processes and communications to better manage care, often without additional reimbursement.

^{*}Radiation Oncology Model, a five-year pilot APM to test bundled payments, is delayed indefinitely based on an August 2022 final rule.

Selected Commercial Payer Value-Based Contracting Programs

In addition to many local/regional value-based pilot programs (including cancer bundled payments and accountable care organizations (ACOs), among other models), large national insurers are developing models to promote value in cancer care contracting.

Payer	Value-Based Contracting Model Overview
Anthem	Oncology Medical Home (launched 2020)
	 Aligned with the American Society of Clinical Oncology's (ASCO) "Patient Centered Oncology Payment Model."³⁵
	 Includes a care coordination fee (in the form of a per-member, per-month (PMPM) payment) for management of patients on outpatient chemotherapy or immunotherapy, adherence with cancer pathways, and financial incentives for quality metrics.
	 Measurement of oncology-specific quality, utilization and pathway adherence performance can result in financial incentives in addition to the PMPM care coordination fee.³⁶
	Cancer Care Quality Program
	 A pathways program developed with AIM Specialty Health centered on clinical effectiveness, reduced toxicity and cost to patients.³⁷ Providers can receive enhanced reimbursement³⁸ for adherence to certain pathways.³⁹
Cigna	Collaborative Care Initiative—Oncology Focus Program ⁴⁰
	 Cigna's Collaborative Care suite of initiatives is the insurer's approach to advancing the triple aim— improving the experience of care, improving the health of populations, and reducing per capita costs of care—through accountable care organizations and payer-provider collaborations.
	 Oncology program focuses on addressing triage, access to care, shared decision-making, end-of-life care, and adherence to evidence-based protocols and measures, seeking to manage costs through preventing avoidable inpatient/ED utilization and monitoring drug costs.
	 Care coordination fee for patient management and practice transformation. Practices required to provide patients around-the-clock access and an RN oncology care coordinator for attributed patients. Value-based reimbursement through shared savings and meeting the asset of quality measures.
	Enhanced data and operational support provided by the plan.
CVS Health	Transform Oncology Care ⁴¹ (launched 2019)
and Aetna	 Includes a precision medicine strategy that increases access to broad-panel gene-sequencing tests for patients diagnosed with certain advanced-stage cancers. Results from tests can also be used to match patients to clinical trials.
	 Therapeutic regimens that align with National Comprehensive Cancer Network (NCCN) guidelines will automatically receive prior authorization approval, speeding the time to start of the therapy for patient.
	Nurse-led care management integrated with payer's existing programs.
	 Value-based provider payments with aligned incentives and enhanced reporting and performance feedback.
	 Available nationwide to health plans that contract with CVS Caremark; Aetna launched it for participating provider networks in fully insured commercial plans in several states.
	Aetna has also partnered with several provider organizations through its Oncology Medical Home program and tested various cancer care coordination programs with several ACOs.

Payer	Value-Based Contracting Model Overview
Humana	Oncology Model of Care Program ⁴² (launched 2019) Medicare Advantage and commercial plans. Compensation for enhanced care navigation based on quality and cost metrics across various parts of the patient journey, ranging from inpatient admissions, ED visits, prescription drugs, diagnostics and radiology. Oncology program was Humana's fourth national specialty-care payment model.
UnitedHealthcare	Cancer Therapy Pathways Program ⁴³ (launched 2019) Financial rewards to providers whose practices demonstrate at least 75% pathway adherence during sixmonth performance measurement periods. UnitedHealthcare has also piloted cancer bundled payment programs with various provider organizations.

Innovative Employer-Directed Programs

Cancer care was estimated in a recent study to be 12% of employers' annual health care expenditures. With this impact on their bottom lines, employers are taking action to drive quality and value in the oncology services extended to employees and their families. Some employers have established direct contracts with leading cancer centers via centers of excellence arrangements. Others are pursuing offerings that strengthen the quality of care delivered in local cancer settings. 44 For example, in 2021, Carrum Health launched an offering for employers in collaboration with Memorial Sloan Kettering (MSK) that bundles cancer diagnosis and treatment services into a single, upfront payment that can deliver significant financial savings to employers compared to traditional fee-for-service billing. Focusing on nonmetastatic breast and thyroid cancers, the bundle includes complete medical treatment for up to two years. 45 To improve cancer outcomes for employers, Cigna launched a consulting service that can be purchased by employers to support plan members and their community oncologists. Enabled by technology, patients with specified diagnoses are identified as candidates for consultation with experts from 20 National Cancer Institute (NCI)-designated cancer centers who review their case and recommend treatment plans and opportunities for clinical trials.⁴⁶

Professional Association Resources for Providers—Data and Benchmarking to Support Quality and Value

Several associations have developed benchmarking resources to support providers in the shift to value.

Organization	Resources	
American Society of Clinical Oncology (ASCO) CancerLinQ	Provides data analytics and benchmarking to inform medical oncologists' clinical practice decisions, including value analysis. A worksheet to support clinical decision-making is a tool to guide physicians in assessing the benefit of treatment options. ⁴⁷ Its Quality Oncology Practice Initiative data benchmarking on quality is also supporting value goals.	
ASCO Quality Oncology Practice Initiative (QOPI)	Benchmarks quality indicators for participating medical oncology practices. Some of these indicators support value initiatives (e.g., days in ICU last two weeks of life).	
NCCN	Guidelines support quality and data analytics partnership with Flatiron Health that will leverage a large electronic medical records (EMR) database to drive quality and value by making real-world evidence available to providers. ⁴⁸	
Vizient	Has developed an Oncology Scorecard for participating members.	

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