

Advancing Performance Measurement in Oncology: Quality Oncology Practice Initiative Participation and Quality Outcomes

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Abstract

The American health care system, including the cancer care system, is under pressure to improve patient outcomes and lower the cost of care. Government payers have articulated an interest in partnering with the private sector to create learning communities to measure quality and improve the value of health care. In 2006, the American Society for Clinical Oncology (ASCO) unveiled the Quality Oncology Practice Initiative (QOPI), which has become a key component of the measurement system to promote quality cancer care. QOPI is a physician-led, voluntary, practice-based, quality-improvement program, using performance measurement and benchmarking among oncology practices across the United States. Since its

inception, ASCO's QOPI has grown steadily to include 973 practices as of November 2010. One key area that QOPI has addressed is end-of-life care. During the most recent data collection cycle in the Fall of 2010, those practices completing multiple data collection cycles had better performance on care of pain compared with sites participating for the first time (62.61% v 46.89%). Similarly, repeat QOPI participants demonstrated meaningfully better performance than their peers in the rate of documenting discussions of hospice and palliative care (62.42% v 54.65%) and higher rates of hospice enrollment. QOPI demonstrates how a strong performance measurement program can lead to improved quality and value of care for patients.

Introduction

The American health care system has long been under fire for its rapidly escalating costs and to improve patient outcomes and quality of care. Even today, a decade after the publication of the Institute of Medicine's landmark reports "Crossing the Quality Chasm"¹ and "Ensuring Quality Cancer Care,"² both of which identified major gaps in the quality and safety of care in the United States, patient care remains highly variable. Underperformance in our health care system still costs our nation tens of thousands of avoidable deaths and billions of dollars in excess medical costs each year.³

Given the pressure to resolve this, our system is approaching a crossroads that will demand a rigorous evaluation of clinical practice and outcomes measurement. This call for high-quality care is being heard in all sectors of our health care system. Newly appointed Centers for Medicare and Medicaid Services (CMS) administrator Don Berwick has stated that CMS is interested in partnering with the private sector to create learning communities to improve the value of health care for Medicare and Medicaid recipients.⁴ This statement from a key stakeholder reinforces the focus on quality and cost-containment that is driving change at the highest levels of our health care system. Berwick has also detailed his thinking in the triple aim for redesigning the health care system to achieve three objectives: to improve the health of the population, to enhance the quality of care, and to control the per capita cost of care.⁵

The private payer sector has also spoken up, calling for a focus on quality and value in health care and on the future role of outcomes measurement in value- and quality-based payment. In their 2009 report, America's Health Insurance Plans,⁶

the national association representing nearly 1,300 member health insurance companies, describes 28 health insurance plan programs aimed at assessing and rewarding high-quality care. These programs that involve physicians, hospitals, and payers are part of a larger movement toward pay for performance.

Clinical and professional associations are in a unique position to meet this call for quality measurement and reporting, given their focus on clinical and operational excellence within their specialties and their close connection to their member physicians, hospitals, and other providers. Indeed, professional association quality-improvement programs have grown to prominence by engaging broad provider participation, measuring real-world clinical practice, and driving clinical standards of care. The centerpiece of the American Heart Association's Get With the Guidelines program is its web-based clinical stroke registry; more than 1,500 hospitals have contributed more than 1.5 million stroke episodes to the registry since its inception in 2003. Quality measures adapted from the program have been adopted by the National Quality Forum and the Joint Commission, and seven of the 15 quality measures for hospitals in the CMS Meaningful Use Electronic Health Records incentive program are stroke measures that originate from this program.⁷ Both the American Heart Association stroke registry and the Society for Thoracic Surgery's registry on cardiac surgery are under consideration for further integration into the emerging public-private system for measuring quality of care.⁸

As professional quality-improvement programs mature, they can also take on additional important functions for physician practices. The NeuroPoint Alliance—which leverages a common registry infrastructure shared between the American Asso-

ciation of Neurological Surgeons and the American Board of Neurological Surgery—represents an integrated clinical registry for quality improvement and clinical research and for tracking case logs that are helpful for initial board certification and for Maintenance of Certification.⁹ The American College of Rheumatology sponsors the Rheumatology Clinical Registry for quality improvement, continuing medical education, and participation in the Physician Quality Reporting System.¹⁰

Fundamentally, all of these programs use their registries to record measures of real-world clinical practice, including patient outcomes. These observational study methods are increasingly recognized as an important source of evidence for comparative effectiveness research,¹¹ national clinical guidelines, and evolving payment strategies.

Improving Quality of Cancer Care: The Quality Oncology Practice Initiative Program

In the wake of the Institute of Medicine reports, discussions intensified around the need to create systems that assess the quality of cancer care and ultimately led to the establishment of the American Society of Clinical Oncology's (ASCO's) Quality Oncology Practice Initiative (QOPI) program. In 2006, after four years of development and testing, this voluntary program was opened to all of ASCO's medical oncologist members. The ASCO QOPI program has demonstrated effectiveness in improving care and is a key component of the measurement system for quality of cancer care.

QOPI is an oncologist-led, practice-based, quality-improvement program with a goal of promoting excellence in cancer care through a practice's voluntary self-examination and process improvement system. The QOPI process currently includes a twice-yearly data reporting and analysis cycle and offers participating practices extensive, site-specific, and benchmarking reports that describe the continuum of care. Sites report concordance with up to 91 measures across several modules in three broad areas. The Core Measure module is completed by all participants. Domain-specific modules include questions related to chemotherapy symptom/toxicity management and end-of-life (EOL) care. Disease-specific modules focus on patients with lymphoma, breast, colorectal, and lung cancers. The evidence-based, peer-developed measures provide timely feedback regarding the areas of care that are important to quality and value, which allows practices to evaluate and improve their care processes over time.

Practices registered in the QOPI program currently choose whether to participate in each reporting period; continued reporting is ideal but voluntary. Participation in QOPI has grown steadily since its inception. In the first two reporting periods, a total of 41 sites, representing 92 physicians, were registered.¹² Recent participation is described in Table 1.

Early results from the QOPI program showed that practices that participated in the program improved performance in key clinical process measures.¹³ As the program has matured, new metrics have been added, and practices continue to reach ever higher levels of performance.

Table 1. 2010 QOPI Participation

Descriptor	Spring 2010	Fall 2010
No. of sites		
Registered	799	973
Submitting data	382	428
Reporting both periods		178
Practice setting, % of sites		
Private academic	6.50	8.40
Private independent	67.03	55.94
Fellowship	3.00	4.60
Employee	17.44	21.46
Academic	6.03	9.60
No. of patients	25,342	26,651
Sex, % of patients		
Female	63.05	63.38
Male	36.95	36.62
Diagnosis tumor type, %		
Breast	31.80	32.52
Colon/rectal	24.97	19.75
NHL	13.78	14.06
NSCLC	17.79	21.02
Other	11.66	12.64

Abbreviations: QOPI, Quality Oncology Practice Initiative; NHL, non-Hodgkin's lymphoma; NSCLC, non-small-cell lung cancer.

QOPI's Role in Demonstrating Improved EOL Cancer Care

One key area that the QOPI program has addressed and measured since 2006 is EOL care for patients with cancer. When cure is no longer possible, the goals of treatment transition to focus on the physical, psychological, social, and spiritual needs of both the patient and the family.^{14,15} One of the most important components of care at the EOL is early and clear commu-

Take-Away Points

Since 2006, the American Society of Clinical Oncology Quality Oncology Practice Initiative (QOPI) has grown steadily to include 973 practices. QOPI is a physician-led, practice-based, quality-improvement program that uses performance measurement and benchmarking among oncology practices across the United States. Measurement focuses on chemotherapy management and end-of-life care for patients with lymphoma, breast, colorectal, and lung cancers. In the most recent data collection cycle in Fall of 2010, practices demonstrated high rates of performance in key measures of quality including:

- cancer pain and dyspnea care,
- palliative care and hospice enrollment, and
- rates of chemotherapy use in the last two weeks of life.

nication between the doctor, patient, and family.¹⁶ When unrealistic expectations are held by patients, they may seek aggressive care that can actually decrease their quality of life before death.^{17,18} This pressure—combined with oncologists’ desires to provide hope and families’ unfamiliarity with palliative care services—can lead to overuse of chemotherapy at the EOL. Prior studies have shown that such treatment often proceeds without real improvements in survival.^{19,20}

Moreover, the costs of care near the EOL are substantial. In 2008, Medicare paid \$55 billion in physician and hospital bills during the last two months of patients’ lives; it has been reported in the popular press that 20% to 30% of these medical expenses may have had no meaningful impact.²¹ Current patterns of cancer care suggest that, despite the improving availability of palliative care services and hospice, patients are increasingly receiving chemotherapy within the last two weeks of life, which requires more frequent visits to the hospital and emergency department in the last month of life. These patients are also often referred to hospice care in the last days of life as a means of managing death rather than as a tool for palliation of symptoms.²² Recent research has shown that a focus on palliative care and hospice decreases unnecessary expenditures and fosters an environment of better preparedness for the EOL, decreased suffering, and improved advanced care planning.^{17,22,23} As an example, hospice has been shown to provide

the largest cost savings for any terminal illness for patients with lung cancer on Medicare.^{24,25}

Zhang et al²⁶ studied patients with advanced cancer and found those who reported having EOL conversations with physicians were more likely to receive outpatient hospice care, were referred for hospice earlier, and had significantly lower health care costs in the final week of life. Higher costs were actually associated with lower quality of death.

Until recently, a shortage of easily accessible quality data about patients with advanced cancer has posed an obstacle to improving palliative and EOL care.²⁷ It is best to use quality indicators and measures that are specific to EOL, such as use patterns of chemotherapy and the specifics of receiving hospice care. QOPI indicators were derived from clinical guidelines and published standards adapted from the National Initiative on Cancer Care Quality and others to include consensus-based and clinically relevant data.

Offering an opportunity for practices to submit EOL data on 16 different measures, QOPI is demonstrating the value of monitoring and improving quality of EOL cancer care delivery. Oncology practices typically use this EOL module in conjunction with all of the tumor types in QOPI, thus identifying ways to systematically improve communication, documentation, patient education, and work flow that will improve care at the EOL.

Table 2. Site Performance on QOPI EOL Measures

Description	EOL Measure No.	Measure Compliance				P*
		Sites First Reporting in Fall 2010		Sites Reporting in Multiple Periods (n = 366; %)		
		%	No.			
Pain						
Plan for pain	37	74.42	266	83.96	.003	
Pain assessed before death	35	76.00	278	87.26	< .001	
Pain intensity quantified before death	36	37.53	277	61.28	< .001	
Pain assessed appropriately before death	38	46.89	278	65.84	< .001	
Dyspnea						
Dyspnea assessed before death	39	66.70	278	75.97	.009	
Dyspnea addressed before death	40	71.32	275	77.31	.084	
Dyspnea addressed appropriately before death	41	60.82	278	71.37	.005	
Hospice						
Hospice enrollment and enrolled more than 3 days before death (defect-free measure 42 and inverse 44)	44a	31.45	262	40.95	.015	
Enrolled in hospice	42	44.39	278	53.04	.03	
Hospice or palliative care used	43	50.01	278	57.92	.046	
Hospice within 3 days of death†	44	16.73	276	15.64	.71	
Hospice/palliative care addressed appropriately	47	54.65	267	65.60	.005	
Hospice within 7 days of death†	45	28.77	278	28.79	.996	
Hospice/palliative care discussed	46	17.00	275	21.54	.152	
Chemotherapy within last 2 weeks of life	48	11.74	279	11.42	.9	

Abbreviations: QOPI, Quality Oncology Practice Initiative; EOL, end-of-life.

* P values for comparing the proportions between the two groups were calculated on the basis of the method described by Woodward.²⁸ P values less than .05 were considered statistically significant.

† Lower score is better.

Table 2 presents an analysis of QOPI EOL data by comparing sites that have participated multiple times in the EOL module to those that reported EOL data for the first time in Fall 2010. Sites that contributed data more than once showed higher performance in their assessment of pain and dyspnea (shortness of breath) before death. QOPI measure 38 is a composite measure with components from three pain-related measures including assessment of pain, documentation of pain intensity, and the formulation of a specific plan for treating pain during the last two visits before death. In oncology practices that participated in multiple cycles of QOPI data collection, performance was better (62.61%) compared with sites reporting the EOL measures for the first time (46.89%). Similarly, repeat practices performed better on composite measure 41 on the appropriate assessment and care for dyspnea; sites participating in multiple QOPI data-collection cycles had higher performance at 67.99% compared with 60.82% for new participants. Repeat QOPI participants also demonstrated meaningfully better performance than their peers in rates of documenting discussions of hospice and palliative care with patients in the last two months of life. Performance was 62.42% for sites participating in multiple data collection cycles compared with 54.65% for first-time sites (measure 47). This translated to higher rates of actual hospice enrollment and palliative care referrals of 56.11% and 50.01% in the respective groups (measure 43).

Recent QOPI data also demonstrate that participating in the program helps practices analyze the timing of treatment, in particular the use of chemotherapy within the last two weeks of life. The percentage of patients receiving chemotherapy during the last two weeks of life was similar at 12.49% and 11.74% (measure 48) for the two groups. This topic is particularly challenging to assess in traditional clinical trials and is expected to vary among types of cancer and stages of disease. It appears that QOPI practices are maintaining relatively low levels on this measure, which is considered favorable performance.

Overall, QOPI participants are appropriately transitioning their focus of care from aggressive cancer treatment to supportive care near the EOL. These early results of the QOPI program are promising, and we expect to report on the other aspects of care measured in the program. It is possible that the results are favorable partially because the program currently includes voluntary, early-adopter oncology practices. In the future, we will assess performance of new cohorts of practices and on those remaining in the program over longer time periods. In the

longer term, we seek to determine whether the methods used in QOPI will translate into higher value care with reduced costs and better outcomes for patients with cancer.

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