Community Oncology in an Era of Payment Reform

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OVERVIEW

Patients and payers (government and private) are frustrated with the fee-for-service system (FFS) of payment for outpatient health services. FFS rewards volume and highly valued services, including expensive diagnostics and therapeutics, over lesser valued cognitive services. Proposed payment schemes would incent collaboration and coordination of care among providers and reward quality. In oncology, new payment schemes must address the high costs of all services, particularly drugs, while preserving the robust distribution of sites of service available to patients in the United States. Information technology and personalized cancer care are changing the practice of oncology. Twenty-first century oncology will require increasing cognitive work and shared decision making, both of which are not well regarded in the FFS model. A high proportion of health care dollars are consumed in the final months of life. Effective delivery of palliative and end-of-life care must be addressed by practice and by new models of payment. Value-based reimbursement schemes will require oncology practices to change how they are structured. Lessons drawn from the principles of primary care’s Patient Centered Medical Home (PCMH) will help oncology practice to prepare for new schemes. PCMH principles place a premium on proactively addressing toxicities of therapies, coordinating care with other providers, and engaging patients in shared decision making, supporting the ideal of value defined in the triple aim—to measurably improve patient experience and quality of care at less cost. Payment reform will be disruptive to all. Oncology must be engaged in policy discussions and guide rational shifts in priorities defined by new payment models.

Every health care system is shaped by its reimbursement design. Delivery of outpatient health care services in the United States is defined by transactional payments. A given service is identified by a Current Procedural Terminology (CPT) code, which has an assigned value relative to a standard reference service. This fee-for-service system (FFS) has evolved in the milieu of an open, competitive financial system. This transactional, volume-based reimbursement system stimulated the development of a highly distributed array of sophisticated sites of service where expensive and complex health care is available to citizens of the United States. Despite the success of promulgating a robust array of sites to deliver services, the transactional basis of reimbursement and the relative value assigned to services reward volume and high-technology services over cognitive and supportive care services. The recent report by the Institute of Medicine Delivering High-Quality Cancer Care categorized deficits in oncology care that arguably are directly related to the reimbursement system. The authors of the report highlight the fragmented nature of care provided by practices siloed from one another. The lack of coordination of care between the various providers generates frustration for patients and physicians and affects outcomes of care. All of these factors contribute to rising total health care costs, instances of poor measures of outcome and quality of care, and disparities in care to certain populations. Every aspect of oncology practice is under challenge. Permeating policy discussions are pressures to reform FFS payment to models of reimbursement that incent the provision of efficiently delivered quality care for less total cost to the health care system—that is, to promote value. These pressures are translated to individual practices as seemingly ever-increasing regulatory and documentation demands. This article highlights four topics that inform these changes.

BIG DATA, PERSONALIZED CARE, AND PAYMENT REFORM

It has been estimated that by 2020 there will be 5,200 gigabytes of data for every human being on the planet. Medical information is doubling every 5 years, and 90% of digital medical data was developed in just the past 2 years. Eighty percent of it is raw, unstructured data. Taming big data through computerized intelligence or rapid learning systems for oncology is typified by Memorial Sloan Kettering Cancer Center’s use of IBM’s Watson, and the American So-
The tenet of personalized medicine is that the treatment of disease is most effective when the definition of both the disease and the treatment is individualized at the patient level. Oncology is at the vanguard of defining personalized medicine, developing new paradigms in basic science, drug development, clinical research, medical education, patient engagement, and care at the bedside. However, this is only possible when data mined from hundreds of millions of persons allows that “each patient will be surrounded by a ‘virtual cloud’ of billions of data points that will uniquely define their past medical history and current health status.” The knowledge drawn from this cloud of “big data” will allow the generation of an actionable algorithm “within the context of the dynamics of biologic networks and molecular machines” that will treat both the patient’s current clinical needs and provide for future wellness.7 This is truly patient-centered care.

Oft cited threats to this dream include privacy and out-of-control drug prices. However, the real threat to bringing big data and personalized cancer care to fruition is an antiquated reimbursement system that only pays for care when it involves physician touches and expensive drug infusions. It is not just that FFS medicine fails to reimburse for many of the services provided in cancer clinics, but that it further fails to reward innovation and decision making that bring greater quality, efficacy, or value to patient care. In fact, the current system incentivizes inefficiency and overutilization of the most expensive services. Big data will transform the entire health care sector, but to capture its full value, industry must undergo fundamental changes. New payment models are key to pay future oncologists for delivering this type of care.

Alternative payment methods have variably included disease-specific treatment pathways to decrease variability and bring a modicum of efficiency, targeted incentives to reward quality improvement, and bundled or episodic payments to discourage overutilization and to incent innovation to further bring efficiencies to the care process.8,9 This past year Congress has made a certifiable effort to tackle the Sustainable Growth Rate debacle. These efforts include a call by Congress for alternative reimbursement schemes that are provider-developed and specialty-specific. ASCO’s Clinical Practice Committee (CPC) has led efforts to devise such a model for oncology.10

In the CPC model, core monthly payments for new patients, treatment months, transition of care months, and surveillance or nontreatment months are augmented or decreased according to provider-developed value-based pathway adherence and quality process measurements that ultimately would give way to outcome measures.

The patient-centered medical oncology home with shared savings pairs seamlessly with a bundled payment system foreseen in the CPC model. This contrasts with attempts to implement medical home principles within an FFS based system. A functioning oncology medical home will decrease the volume of expensive hospital and emergency room services delivered, saving money for the payer, but these savings are often not shared with the practice. Practices, which implemented these principles ahead of gaining contracts with insurers, have seen a decline in hospital evaluation and management billings, which when combined with increased infrastructure costs, result in decline in practice revenues. The proverb of “no good deed goes unpunished” comes to mind.

The promise of big data-driven personalized medicine is exciting. The future is an informatics age where access to research and personalized therapies can be tapped by any oncology provider. Such technology will not displace the need for a physician, but will require a very engaged oncologist to translate these advances to the needs of an individual patient. Current FFS reimbursement structures do not pay for the cognitive processes to support this future. Only oncologists have the collective knowledge to build a reimbursement system that will allow for the promise of big data-driven personalized care. It is time that we do so.

**KEY POINTS**

- The fee-for-service system for payment of outpatient services will evolve to schemes that emphasize measurable improvements in patient experience and quality of care.
- New payment schemes must value the increase in time, cognitive demands, and shared decision making required in an era of personalized medicine.
- New payment schemes must recognize the multitudinous factors that drive increasing health care costs and balance forces to control costs, yet preserve the robust delivery system.
- New payment schemes must support the provision of services in low-cost sites of service, such as community practice, and promote innovation in practice structure and care delivery, such as oncology medical homes.
- Recognizing the limited availability of specialty palliative care services and the high proportion of health care costs in the final months of life, practices must incorporate palliative care services into routine oncologic care, and payers must adequately reimburse for the services.

**TRANSPARENCY, COSTS, AND VALUE OF DRUGS AND CARE**

The nonsustainability of rising health care costs in American has been recognized for decades. Perspectives on the root causes of this problem are myriad, as are proposed solutions (Table 1). Notable is the lack of encouraging access to transparent analysis and discussion at various policy levels of the expected costs versus benefits of health care services and goods. Dr. Joe Selby, the first head of the Patient Centered
Outcomes Research Institute (PCORI) founded by the Accountable Care Act of 2010 stated, “You can take it to the bank that PCORI will never do a cost-effectiveness analysis,” yet left open that costs alone may be considered at some future point depending on patient input on what should be researched. Would it come as a surprise that there is an increasing disconnect between the price of medical goods and services and the value they bring to patients? This disconnect has been well recognized in oncology, cited as one factor influencing drug shortages (where the pricing may lower incentives of manufacturers in lieu of other market opportunities to supply the drug) and therapies that cost in excess of $100,000 per course when clinical trials reveal survival benefit that may be no more than 1 to 2 months.

Other than for national security purposes, in what other industry is there such tolerance for not shining a light on the relative benefits and costs of its products? Open, clear, understandable labeling, free from manufacturer bias, is a cornerstone principle of a well-functioning marketplace that allows the consumer to make thoughtful purchases. Despite the many well-meaning and relevant solutions, they will almost certainly fall short of expectations without a more transparent system of care.

Every oncologist who has ever given bad news to a patient and family knows that transparency at the bedside is not easy. It cannot be a hurried, blunt, heartless download of information. Rather, it involves a willingness to engage in a discussion with the patient, usually over several visits, where trust grows so that the harder facts and implications can be more openly explored and met. It is probably self-evident to most, if not all, practicing oncologists that increasing trust opens up opportunities for more transparent discussion, and greater transparency reinforces trust.

### INTEGRATING PALLIATIVE CARE INTO PRACTICE

The importance of palliative care to ensure patients with cancer receive the best possible care throughout their illness is well recognized. Several randomized studies have demonstrated that earlier involvement of specialty palliative care in the ambulatory setting improves patients’ quality of life, symptoms, and care delivery at the end of life. Both because of the lack of specialty palliative care personnel and resources, and to the opinion of many oncologists that providing this care is an integral component of cancer care, the field is also recognizing the importance of primary palliative care. Primary palliative care refers to the skills that clinicians should have to provide symptom management and to engage in conversations about goals of treatment and prognosis with their patient population. Although the opti-

### TABLE 1. Rising Healthcare Costs: Root Causes and Some Proposed Solutions

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<thead>
<tr>
<th>Root Causes</th>
<th>Proposed Solutions (Selected Examples)</th>
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<tbody>
<tr>
<td><strong>Aging population</strong></td>
<td>Public awareness campaigns promoting healthy aging</td>
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<td>Availability of products that incontrovertibly harm people (e.g., smoking, high-calorie drinks)</td>
<td>Employer wellness programs</td>
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<td>Medicalization of what had traditionally been considered non-medical problems (e.g., “lifestyle” drugs)</td>
<td>Taxation policies that encourage healthy choices</td>
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<td>Respect for patient autonomy trumping in policy and legal deliberations, other biomedical ethical considerations, such as beneficence, non-maleficence, and especially justice</td>
<td>Policies to distinguish what falls into the realm of medical care (e.g., from Oregon’s Medicaid program town-hall meetings)</td>
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<td>Payment systems that financially reward the provision of more rather than less healthcare services (e.g., fee-for-service)</td>
<td>Assigning financial risks to organizations that fail to meet quality targets</td>
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<td>Limited evidence upon which to assess expected costs versus expected benefits to patients and populations</td>
<td>Insurers providing information on costs of drugs and procedures</td>
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<td>Difficulties at various policy levels to transparently discuss sensitive topics, such as costs, allocation, budget limitations, and justice</td>
<td>Leveraging technologic advances in data acquisition and analysis to facilitate Learning Health Systems (e.g., CancerLinQ™)</td>
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<td>Information asymmetry between the entities recommending and providing care and recipients of care, the patients</td>
<td>Increasing physicians’ willingness and patients’ ability to participate in shared health care decision making</td>
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<td>Lack of financial incentives for patients to consider costs of care in bedside decision making (called moral hazard)</td>
<td>Assigning more financial responsibility to patients, such as deductibles and copayments</td>
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<td>Denial that rising health care costs are nonsustainable</td>
<td>Encouraging public awareness about the disconnect between what the United States pays for health care and population-level statistics showing how the United States has fallen behind other counties with respect to life expectancy and infant mortality</td>
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mal ways to provide primary and specialty palliative care to individual populations have yet to be defined, a one-size-fits-all approach is not feasible. Variations in staffing, resources, clinic space, reimbursement, and practice style at the institutional and individual level for both palliative care and oncology require a flexible approach for integrating the two services.20

Although academic and larger community centers may have a number of different options for integrating palliative care into their practices, other community sites may not have the personnel and resources to provide palliative care to all of their patients. Certainly, the practice of primary palliative care by oncologists becomes paramount when specialty palliative care providers are not available. Recent data demonstrates that the majority of patients receiving cancer-directed therapy with either chemotherapy or radiation fail to understand the goal of their treatment.21,22 Not only does this data highlight deficiencies in communication between patients and their clinicians, but it may also have implications for the type of care patients receive at the end of life. Specifically, patients who hold overly optimistic perceptions of their prognosis are more likely to receive more intensive and costly medical care at the end of life.23

How can community sites with limited specialty palliative care resources ensure their patients are receiving palliative care? First, practices can adopt triggers, or standardized indications, for referral to specialty palliative care to ensure those with the greatest need are cared for appropriately.24,25 Second, they can institute practice changes within oncology to ensure clinicians initiate conversations with their patients about their goals of care and treatment preferences.26 There are a number of training programs for clinicians and information/decision aids available to patients and clinicians that can facilitate these discussions.27-29 Although these conversations are lengthy and not reimbursed by insurance based on content, time-based billing may relieve some of the time pressures inherent with these discussions. Some sites may find it helpful to designate a nonspecialty palliative care provider within their practice who is more comfortable and experienced in these types of conversations who can help out in difficult situations. Last, as a field, oncology must continue to educate our patients, colleagues, and hospital administrators about the benefits of palliative care and advocate for greater availability of services.30

TRANFORMATION OF ONCOLOGY PRACTICE

Services provided in an oncology physician’s office cost, on average, one-third to two-thirds as much as the exact same service provided in a hospital setting.31 However, the FFS reimbursement system has not recognized many of the services that oncology practices provide. Historically, oncology practices have covered the costs of these services through the margin on chemotherapy drugs. This was satisfactory for payers and practices alike until the advent of extremely expensive chemotherapies. The margin paid on very expensive therapies based on the Average Sales Price (ASP) of a drug. This system has substantially reduced these marginal revenues for practices.

Under the proposed new Medicare payment systems being contemplated by Congress, the FFS model is going to be phased out over the next several years. Under any new payment model, oncologists will need to be compensated for managing very ill and complicated patients, for the infrastructure of providing safe infusions, and for support services like financial counseling, palliative care, symptom management, and patient education.

New payment models are likely to focus on quality-of-care metrics and measures of value to populations of patients served by a practice. To survive changes in payment reform, dramatic redesign of care delivery will need to take place. Ideally, oncology care will continue to be delivered in the lowest cost of site of service close to patients’ homes. This requires a system of care to preserve the community practice of oncology. Several practice models of oncology care delivery have drawn on the principles of Patient-Centered Medical Home.32,33

COME HOME is an outpatient oncology medical home model developed to provide an alternative to hospital-based care.34 It is designed to meet the triple aim of better health, better health care, and lower cost. COME HOME is drawn from the experience of Dr. Barbara McAneny’s practice in Albuquerque, NM, the New Mexico Cancer Center. It is characterized by the development of policies and procedures to aggressively manage the side effects of cancer and its treatment—resulting in a model that saves considerable money for the system by keeping people out of emergency departments and hospitals.

For this reason, the Center for Medicare and Medicaid Innovation awarded Dr. McAneny, as Innovative Oncology Business Solutions, Inc., a $19.8 million grant to see if the COME HOME model could be implemented at six other practices across the country. The model is based on triage pathways, which are designed to focus on getting each patient the care they need, when they need it, by offering same-day visits in the office. In addition, the model uses extended clinic hours into the evenings and weekends, thus cutting down further on emergency department use. The infrastructure of the oncology practice provides the ability to act as urgent care for oncology patients, who can be efficiently triaged, evaluated, and, if necessary, receive treatment by providers who know the patient. Clearly such mechanisms of care meet the triple aim of better health, better health care, and lower cost.

However, without grant funding, the COME HOME labor intensive care processes are not sustainable. The next step will be to create a model of an alternative payment model that can support practices that adopt COME HOME principles. Some of the money currently supporting infrastructure at hospitals and emergency departments will need to be redirected toward physician offices. The experience of patients is greatly improved when they are seen in a familiar setting with a wait time measured in minutes rather than hours, by phy-
Patients with cancer, particularly those with a limited remaining life span, are intensely grateful that they get to spend more of their time sleeping in their own beds than being admitted to a hospital.

CONCLUSION

Winston Churchill said, “You can always count on Americans to do the right thing—after they have tried everything else.” Critics note that the fragmentation of U.S. health care delivery cannot be characterized as a system. They underline that new models of payment should incent the connection of the parts into a coordinated system of care. An era of marked disruption is at hand, as policy makers strive to preserve the current innovative spirit in health care, yet change the incentives in payment to force more integration of care delivery. Many experiments and refinements are imminent—reflecting the revolution of scientific understandings that are transforming oncology practice.

ASCO, through its several volunteer committees, seeks to represent oncology providers’ voice in the public discourse to help America do the right thing. Readers are encouraged to review ASCO’s Payment Reform Series for further depth and information on the Society’s efforts related to these issues.19

Disclosures of Potential Conflicts of Interest

Relationships are considered self-held and compensated unless otherwise noted. Relationships marked “L” indicate leadership positions. Relationships marked “I” are those held by an immediate family member; those marked “B” are held by the author and an immediate family member. Relationships marked “U” are uncompensated.

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References

22. Chen AB, Cronin A, Weeks JC, et al. Expectations about the effective-


