Medical value is generally defined as a measure of outcomes achieved per monetary expenditure. ASCO has chosen to define value in cancer care by emphasizing clinical benefit (efficacy), toxicity (safety), and cause (efficiency). The IOM defines 3 other equally important elements of quality health care delivery: patient centeredness, timeliness, and equity. Value is becoming increasingly important for health care organizations in a resource-strained era. Health care delivery experts Porter and Lee describe value as the “true north” for organizational strategy, defining it as the health outcomes achieved for patients relative to the costs of achieving them. Porter particularly emphasizes the importance of measuring outcomes that matter to patients as a cornerstone for the term value.

As oncologists, we are trained to measure outcomes with respect to cancer progression and drug toxicity. However, Porter describes tiers of outcomes that are of great importance to patients. The second tier, titled “process of recovery,” includes time to recovery and disutility of care or treatment process. Included in these measures are time to begin treatment, time to return to physical activities, time to return to work, and delays and anxiety. Many of these outcomes are time-dependent variables that are easily measured. Yet we in the oncology community rarely measure them.

An initial diagnosis of cancer is fraught with fear, trepidation, and anxiety. During this initial phase, patients and families are often desperate for answers. The patient wants to know what is going on and what will be done about it. Patients will search the Internet and other sources to get information as quickly as possible. The longer they wait for a definitive treatment plan and to begin the process of care delivery, the more likely their anxiety and fear will build, which may lead to dysfunctional decision-making or worse.

Unfortunately, the sparse literature that exists about wait times for initial cancer treatment is disheartening. A recent report examined wait times for cancer surgery in the United States in 1.2 million patients with nonmetastatic solid tumors. During the study period of 1995 to 2005, the median time from diagnosis to treatment increased for all cancers (P<.001). Of particular interest is that the time from diagnosis to treatment was significantly longer at NCI-designated Comprehensive Cancer Centers (CCC) compared with community hospitals (P<.0001). The problem was exacerbated if the diagnosis and surgery were performed at different hospitals. As an example, patients with lung cancer treated at an NCI-designated CCC waited a median of 30 days for initial surgery if diagnosis and surgery were at the same hospital and 46 days if they were at different hospitals. Other factors associated with delayed initial therapy included older age, black race, greater comorbidities, or stage I disease. Thus, vulnerable populations are even more subject to treatment delays.

A common response to using time to treatment as a quality metric is that, at least in solid tumors, earlier start of treatment is not perceived to be associated with better outcomes. However, this may not be exactly accurate: although high-quality data are difficult to come by, a recent systematic review of 209 studies did find an association between shorter times to diagnosis and more favorable outcomes for select cancers, including breast, colorectal, head and neck, and testicular cancers, and melanoma.

This response is also a classic example of physicians and patients having disparate judgments about which outcomes are important. We note that in many physicians’
Anecdotal experience, time is indeed of greater essence when advocating for themselves, family, or friends—in other words, physicians’ priorities align with patients’ priorities when they are placed in patient roles. Although it is difficult to show that reducing wait times for initial cancer surgery from 6 to 2 weeks will improve overall survival, that it will generate value from a patient perspective—simply by reducing anxiety and distress if nothing else—is not in doubt.

This outcome should be important to all cancer caregivers, but it is rarely measured. Measurement of the time it takes for the initial diagnosis of cancer to the initial therapy (time to first treatment) is something we would argue that every cancer center should track. We have begun this tracking at the Cleveland Clinic, and the results are sobering; our initial results of time to treatment are similar to those reported at other NCI-designated CCC organizations. We believe the solution to improving efficiency and reducing time to treatment is to organize into integrated practice units, as advocated by Porter and Lee.\(^2,3\) This involves incorporating multidisciplinary care into the initial treatment planning, with geographically close members of surgery, medical oncology, radiation therapy, and other ancillary disciplines working together to define optimal care. Although it is logistically challenging, in academic centers this is best achieved in a patient-centered clinic rather than through multiple appointments. In our preliminary experience, we have been able to reduce time to treatment by several days for patients scheduled first into a multidisciplinary clinic (Alok Khorana, MD, unpublished data).

In our opinion, the time for the oncology community to begin to focus on patient-centered value measures is now. Measuring and improving time to treatment will not just improve the efficiency of the health care delivery system, but will also be of tremendous value to patients and their families. Timely therapy will generate efficiency and save money for the health care delivery system and, most importantly, will reduce psychological distress and anxiety for patients. We would argue that this is a better definition of value than ones currently employed.

**References**