Quality and Value in an Evolving Health Care Landscape

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Demonstrating and improving value of care continues to be increasingly important in hand surgery. To prepare for emerging models that transition payment from volume to value, hand surgeons will benefit from a clear understanding of quality, cost, and value. National organizations and both public and private payers increasingly advocate for patient-reported outcome measures for pay for reporting and pay for performance initiatives. These are intended to incentivize providers and health systems to improve patient-centered care while minimizing costs. Appreciating the limitations to using patient-reported outcomes in hand surgery can ensure hand surgery is appropriately assessed in novel payment models. *(J Hand Surg Am. 2016;41(7):794–799. Copyright © 2016 by the American Society for Surgery of the Hand. All rights reserved.)*

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HEALTH CARE COSTS ALMOST DOUBLED from 1980 to 2010. Americans spend almost double the proportion of the gross domestic product on health care than do other developed countries. Expenditures in the fee-for-service model, in which delivering more services is rewarded, has contributed to this unsustainable cost in United States health.[1] Large variations in care combined with a rise in costs have led to initiatives that emphasize value (improving health with minimal cost) rather than volume (eg, ordering tests, prescribing medications, and completing procedures). These initiatives are based on the lessons of behavioral economics: Human decisions are affected by context (limited rationality; eg, loss aversion) and altruism (bounded self-interest; eg, people often turn down unfair offers under ultimatum circumstances), and subject to lack of self-control (bounded willpower; eg, even the most successful humans sometimes eat, drink, or spend too much).[2] Aligning the interest of all stakeholders in value-based models takes advantage of known behavioral, economic, and psychological principles to improve the value of care. Similar initiatives are under way in many other parts of the world.[3,4] A firm understanding of the definitions and influence of quality and value on current and emerging health initiatives allows the hand surgeon to better prepare for these initiatives and help shape them.

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QUALITY AND VALUE

The most common definitions of quality address the infrastructure to provide care (structure), the appropriate provision of care (process), and the ultimate patient-centered outcome (outcome, symptoms, and limitations, for example).[5] The Institute of Medicine's definition of quality is "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are

consistent with current professional knowledge."[6] Quality measures are constructed to create a working, usable, definition of quality. For instance, calculating the percentage of operative cases with a documented preoperative history and physical helps define and analyze an important process of care. This measurement can be benchmarked by specialty, hospital, region, and nation. Medicare, National Quality Forum, and Agency for Healthcare Research and Quality have developed frameworks to guide measure development. These measures typically undergo a process of evaluation for importance, feasibility, scientific soundness, and usability. When possible, it is important to adjust for comorbidities (risk) to limit unintended consequences from attempts to improve quality. For example, a quality measure evaluating mortality after coronary artery bypass graft would need to account for the comorbidities that have a demonstrated impact on survival to avoid incentivizing the avoidance of sicker patients to boost performance.[7]

Value in health care is defined as the quality achieved per dollar spent over the entire episode of patient care. Some suggest that value must specifically account for appropriateness of care. For example, it would be inappropriate to inject a trigger finger in perpetuity without offering surgery, even if it resulted in decreased costs compared with surgical trigger finger release. Most would agree that mandating bilateral hand surgery, such as bilateral carpal tunnel surgery, would also be inappropriate. Others suggest that value is defined as outcomes per cost, minimizing the importance of other aspects of quality, including adhering to processes of care, such as a clinical practice guidelines.[3] The scope of "outcome" also varies in these frameworks. Outcome can refer to the disease-specific outcome (improvement in pain and sleep after carpal tunnel release [CTR]) or, more broadly, the patient's overall general health, not just the specific illness (keeping an elderly patient independent for activities of daily living after thumb arthroplasty).[8]

Measurement of costs should include all aspects over the continuum of care, from hospitalization to rehabilitation, tests, physicians involved, facilities used, and costs to the patient and society.[9] There are multiple ways to calculate costs. Most often, cost is underestimated by calculating only payer charges or provider reimbursement, without understanding the actual internal costs incurred during care, which is a better representation of the actual resources consumed. Often cost calculation includes only the acute episode of treatment (operating room and facility fee, for example) without appreciating the costs of follow-up visits, physical or occupational therapy, preoperative and postoperative testing, or downstream complications and/or reoperations. Some have begun using time-driven activity-based costing, a method of calculating costs over the continuum of care that transcends departments and isolated events. Instead, cost is allocated over the whole episode of care and can demonstrate overall cost savings despite, for example, increased costs during surgery.[10] A potential example would be demonstrating overall cost savings through shorter operating room time, quicker recovery, and less use of rehabilitation services for a patient who had a more costly arthroscopic procedure. Traditional calculations also ignore other costs important to the patient, such as indirect costs (having to hire a babysitter, payment for parking, and missed work) or intangible costs (increased family burden). Whereas the ultimate goal of value-based health care is to improve quality of care while decreasing costs, overall cost to the patient and patients' understanding of cost have largely gone unstudied.[11]

WHY DEFINING QUALITY IN HAND SURGERY IS IMPORTANT

Recent efforts by national organizations such as the American Academy of Orthopaedic Surgeons focus on defining and measuring quality and providing cost-efficient care. Indeed, the cost of hip and knee arthroplasty to Medicare, for example, has led to the implementation of outcome quality measures evaluating total joint arthroplasty, the first orthopedic subspecialty scrutinized by payers nationally. As such, the national movement toward using patient-reported outcome measures (PROMs) to define quality has been adopted by hip and knee surgeons. As value initiatives move forward, it is important to recognize some key areas that make hand surgery unique.

First, hand surgery is a relatively heterogeneous field in terms of pathology and procedures. For example, hand surgery includes general, orthopedic, and plastic surgeons who treat patients of all ages and all tissues from the shoulder to the fingertips. As such, there is significant variation in the types of procedures completed: to prevent worsening of symptoms (eg, CTR release for severe carpal tunnel syndrome [CTS]), for cosmesis or discomfort (eg, ganglion excision), for trauma (eg, finger replantation), for pain (eg, basal joint arthroplasty or trigger finger release), or for function (eg, free-functioning gracilis in brachial plexopathy or tendon transfers). Payers continue to ask for "cross-cutting" PROMs that could be applied for quality reporting. There are benefits (feasibility of data collection and reporting, for example) to using one measure consistently for all