



Value and the Orthopedic Surgeon

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Health care financing and the nature of orthopedic practice have changed dramatically in recent years and will continue to do so. Driving these changes is the emphasis on “value,” defined by Porter¹ as the quality of care divided by the cost of care, as opposed to the traditional volume-based care, in which reimbursement is based on a fee for services rendered. Exploring this concept of value in orthopedic care is a favorite topic of mine, succinctly summarized by Black and Warner² in their 2013 article in *The American Journal of Orthopedics*. Two papers in this current issue of *The American Journal of Orthopedics* make important points regarding value and the orthopedic surgeon.

In “Orthopedic Implant Waste: Analysis and Quantification” (pages 554-560), Payne and colleagues examine the costs of wasted implants across 8 orthopedic subspecialties at 1 academic institution over the course of 12 months. The take-home points were these: wasted implants accounted for nearly 2% of the implant cost of the institution; the incidence of waste was related to surgeons with less experience (in practice less than 10 years) but not case volumes (ie, busier surgeons); and nearly two-thirds of the cost of wasted implants occurred in total joint and spine fusion cases.

At my institution, orthopedic implants represent one of the 3 major costs of inpatient hospital care (the other 2 being operating room time and length of stay). Hence, a 2% savings of total implant costs by minimizing waste can make a significant difference in an institution’s profit margin. Since the attending surgeon makes the intraoperative decision on implant type, the burden of minimizing implant waste falls primarily on the orthopedic surgeon. This is just one example of how the individual orthopedic surgeon can improve “value” by decreasing the “cost” of care.

In “Orthopedics in US Health Care” (pages 538-541), Yu and Zuckerman review 5 points on the evolving role orthopedic

surgery plays in the changing landscape of US health care. Among many important topics reviewed, the authors raise 2 important issues specifically related to value and the orthopedic surgeon that I believe warrant special attention.

In point 2, “The Cost Equation,” Yu and Zuckerman state that new technology (always more expensive than existing technology!) must “clearly improve outcomes” prior to its introduction to the market. The adage “newer is better” is sometimes true, but new and more expensive technology (which increases the denominator of the “value” quotient) must afford even greater improvement in quality outcomes to justify its widespread use. Hence, as practicing orthopedic surgeons, we should resist the temptation to embrace new technology without clear evidence that said new technology actually improves the quality of care.

The second topic of interest to me is how we measure “outcomes” in this new value-driven health care world. While many important outcome metrics can be measured by hospital data systems, such as length of stay, unscheduled returns to the operating room, transfusion and infection rates, and 30-day readmissions, equally important clinical outcomes (eg, pain and function scores, joint range of motion and strength, and radiographic findings) are obtained primarily from office-based outpatient medical records. These clinically based quality metrics are far more difficult to obtain for individual practicing orthopedic surgeons and require an investment of time and staff to gather meaningful data. How to record and incorporate these clinical outcomes remains a challenge for the practicing orthopedic surgeon, especially in the nonacademic setting, but these clinical metrics must be a component in the “value equation.”

The concept of value in orthopedic surgery will be the primary driver of future health care financing and policies. To succeed in this changing world, orthopedic surgeons will need to not only understand this new paradigm “value = quality/cost,” but be fundamentally involved in the process, institutionally and politically, that both defines and rewards value.

References

1. Porter ME. What is value in health care? *N Engl J Med*. 2010;363(26):2477-2481.
2. Black EM, Warner JJP. 5 points on value in orthopedic surgery. *Am J Orthop*. 2013;42(1):22-25.

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