

Value, Clinical Outcomes, and Perceptions of Care

I often wonder if the myriad of recent clinical interventions have really changed my patients' perceptions of the outcome of their individual care. I also recognize that with the increasing global concerns over the costs of health care, there is a dialog around the concept of total costs of care and the role that cost plays in impacting patient-level outcomes of care. As described by Porter and Teisberg,¹ *value* for patients is very results or outcome dependent and can be measured in health outcome per dollar of cost expended or saved (direct, such as the cost of a procedure; and indirect, such as lost wages, travel time, and opportunity costs). When we consider implant solutions, we need a more nuanced approach to the value proposition than we have been using.

Before we start a discussion on costs, we should consider what illness* oral implant therapy is addressing. As with many medical rehabilitative therapies (eg, orthopedics), many of the interventions are relatively elective, are used to treat a chronic condition (eg, arthritis), and are used to provide enhanced patient perceptions of quality of life rather than a perception that the intervention will change the physiology of the patient. As such, the needs for clearly defined, patient-oriented (versus clinician-oriented) outcomes are vital to understanding outcomes of care.

For patients to receive added value in regard to outcomes of care, one needs to consider both outcomes and costs. Outcomes can be related to biologic changes (physiologic, such as bone volume or bone density, mucosal health, etc) combined with surgical procedural management protocols (eg, tilted implant placement), prosthetic management (eg, loading protocols, provisionalization, etc), and interaction with the implant system design features (eg, surfaces, microscopic shape, thread design, etc). Outcomes can also be qualitatively described by the patient (eg, perceptions of disability). Cost can be roughly equated to the direct and indirect costs in financial expenditures, time, and travel burden. The total cost of care also includes costs over the lifespan of the restoration (time to retreatment). This is a terminology many dentists are not used to hearing.

In implant dentistry we have encountered multiple procedures and medical devices, often with limited evidence to support the therapy except expert opinion. One approach advocated by many medical and oral health academies is the development of clinical practice guidelines (CPG) to guide the profession on best practices and considerations, especially in patient populations presenting with unique needs. As outlined by Porter and Lee,² a limitation of CPGs is the perception that clinicians who implement them in their practice should expect the same outcomes as supported by the systematic reviews used in the creation and validation of the CPGs. Unfortunately, this is not true. The design of systematic reviews often limits the review to a narrow, biased set of included studies and limits the value of the effectiveness of care studies (eg, due to the inclusion of only randomized controlled trials). This

*Note the difference between a "disease" defined by a set of clinical signs by a practitioner and an "illness" defined by the patient with symptoms defining a set of outcomes. A common example is an analgesic that reduces temperature and pain measures but leaves the patient with ongoing loss of function and systemic side effects.

is deceptive to those in the health professions. The data may support the implementation of a highly sophisticated intervention that only a few can pull off with the outcomes described in the clinical studies performed by the same few authors. What we need are rational, evidence-based CPGs that are *weighted* with an evaluation of the level of experience and training of the clinical team that is needed to implement the CPG *at the same level of competence* demonstrated in the clinical literature. Admittedly, this approach will create competition and make many, perhaps, a bit uncomfortable. The bottom line is, we must become results-oriented in our outcomes. By results-oriented I mean that value is measured by addressing patient concerns over the full cycle of care (eg, fixed prostheses may be more expensive, but with amortization may match the full cycle cost of a removable prosthesis that is periodically replaced). Are there possible solutions? Maybe. One example is the Academy of Osseointegration (AO) current activities in the creation of evidence-based CPGs to guide the profession in the Current Best Evidence in the Management of the Edentulous Maxilla, an AO-sponsored summit to be held in August 2014.

Many who are reading this know that I manage a number of complex congenital anomalies. Clinical situations are often unique for the patient, the family, and the clinical team to manage. From this, I struggle to extrapolate to situations that I can use to manage the next patient, teach a resident, or convey to fellow faculty what we do on a daily basis. Then it hits me. This is totally not about me at all. Our solutions often have a set of measurable clinical outcomes (eg, lack of bone loss on an implant), but with an unclear perception of what the patient's desires were for the therapy undertaken. I have learned to engage in a critical discussion with patients about their expectations and use this as a pathway in the development of the care plan. When the patient is a young child, the conversation has to triangulate between the expectations of the legal caregiver and the patient and our ability to provide a set of interventions that holistically addresses these needs without bankrupting the family. In the end, it is most incumbent on us to step back from our perceptions of outcomes (eg, primary implant stability, retention, bone loss, fixed prosthesis, etc) and embrace the results-oriented measurements of patient-level outcomes as the primary measure of our success. As a profession we need this frameshift in our thinking. Otherwise, we risk becoming irrelevant. As Gordon Gee (Ohio State University president) stated, "if you don't like change, you will like irrelevance even less."

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REFERENCES

1. Porter M, Teisberg E. Redefining Health Care Creating Value-based Competition on Results. Boston: Harvard Business School Press, 2006.
2. Porter M, Lee T. The strategy that will fix health care. Harvard Business Review. October 2013; 91: 50-70 (HBR Reprint R1310B).