

WHY WE SHOULD COLLECT OUTCOMES DATA

BY MARC F. SWIONTKOWSKI, MD

The failure of efforts in the 1990s to create large databases on orthopaedic practice outcomes requires us once again to critically address outcomes research in orthopaedics. The MODEMS program established by the American Academy of Orthopaedic Surgeons and subspecialty societies demonstrated that the vast majority of orthopaedic surgeons in the United States are not motivated to collect outcomes data¹. Those surgeons who did collect the data quickly found that the process was cumbersome and expensive because of the need for specialized software and increased staff time. These additional expenses were impossible to justify, given the increasing pressure on practices to be more cost-efficient. More importantly, without addressing specific and clinically relevant issues, the data-collection activities were not sustainable. During the postmortem on these failed programs, two oversights became clear. First, the expectation that the process should create a financial profit for sponsoring organizations was unrealistic. Outcomes research on this scale is a lengthy procedure, typically consuming resources over an eight to ten-year period. This significant time commitment should have been noted and accepted from the outset. Second, and more importantly, the orthopaedic surgery community should have focused the outcomes efforts on those issues that were most likely to produce clinically useful information. The selection of outcome measures should have been guided by the orthopaedic community-at-large to solidify its "buy-in" into the process as well as to ensure clinically useful information.

Given these realities, why should orthopaedic practitioners be encouraged to restart outcomes efforts? The rationale is severalfold: the growing public demand for this information cannot be underestimated; individuals or individual practice groups cannot produce outcomes data that are comparable with those in the published literature; monitoring outcomes is the only accurate way of determining the effectiveness of individual treatments or procedures; and, finally, it is our professional responsibility to try to continuously improve our performance, which cannot be done without the collection of end-result information.

With nearly half of our patients now utilizing the Internet to obtain information on treatment options before seeking surgical consultation, the demand for hard data on techniques, complications, costs, and outcomes is growing rapidly. The HMO industry has generally capitulated to individual patient demands for freer choice of physicians and treatment alternatives. The industry has dealt with this increased choice by

requiring higher co-payments. In short, patients will increasingly demand to know what the individual surgeon's treatment and surgical outcomes are.

When patients enter into a dialogue with the treating surgeon regarding the results of a considered treatment option, the discussion typically focuses on the risk of complications and the percentage of good and/or excellent results. It is common practice for practitioners to quote the published literature in this setting. Many studies have demonstrated that the results of a surgical procedure that is performed in a community setting may not be as good as the results that are obtained by an expert who has published a large personal series. This finding has been noted in association with both orthopaedic and non-orthopaedic conditions. For these reasons, it is incumbent upon the practitioner who is recommending a procedure to know the results of that procedure in his or her own hands. The more technically demanding the procedure, the higher the responsibility. It has been estimated that the surgeon accounts for >90% of the end result in arthroplasty and fracture treatment, with the implant accounting for <10%².

Optimum experimental evidence is obtained during randomized controlled trials (RCTs). In an RCT, all conditions are optimized to limit the number and effect of confounding variables. Therefore, for any given new treatment, an evaluation of the results of that treatment in the community-based setting (where 90% of orthopaedic care in the United States is delivered) is required. While academic medical centers are frequently the source of reports regarding new treatments, large datasets of outcomes information obtained by practitioners in the community are the best way to obtain critical information about the effectiveness of a given procedure or treatment.

Professionals are defined as those who have a special relationship with the community they serve. In exchange for the privilege of self-regulation, society expects them to govern their activities in a manner that optimally protects and benefits the community (i.e., patients). In order to continue to serve our patients in the best way possible, we need to understand the results of our treatment so that, as new treatments and approaches are developed, we may continually offer our patients the best treatment options possible. This requires a detailed knowledge of the end results or outcomes of our care. It is our responsibility and is an important component of our efforts to maintain our competence in caring for patients.

For these reasons, we must strive to increase outcomes information for each treatment that we are recommending, whether it be a new prosthesis or a different postoperative re-

habilitation program. The effort will be cost-efficient because larger numbers of patients will seek our care, and, more importantly, we will be fulfilling our professional responsibility to the patients we serve. ■

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