Quality Care in Surgery

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During the past several years, one of the most perplexing issues for surgeons has been the assessment of quality of care. We, however, owe it to ourselves and our patients to master the substantive issues that underlie current discussions about this subject. What is quality care? Many definitions have been proposed. Donabedian developed the classic triad for measuring quality in health care: structure, process, and outcome. Structural data are characteristics of physicians and hospitals (eg, specialty of physicians, ownership of hospitals). Process data result from an interaction between physician and patient (eg, tests ordered). “Outcome” refers to the subsequent health status of the patient (eg, improvement in gastrointestinal function). To be credible, structure and process must lead to differences in outcome, and outcome data, to be valid, must show that differences will result if processes of care, under the control of the provider, are modified. There are critics of each approach. When used appropriately, both process and outcome measures can provide important information about the quality of care. We, as surgeons, rely heavily on outcome data. In 1990, the Institute of Medicine defined quality as: “The degree to which Health Services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.” Most agree with this definition and feel it can be measured with a degree of accuracy comparable with that of most measures used in clinical medicine.

Information is necessary to make informed choices among various care patterns. To date, costs have been easier to quantify than quality, so dollars have dominated decision making. Stimulated by reports from Medicare data concerning risk-unadjusted coronary artery bypass graft surgery (CABG) and data from the state of Pennsylvania showing similar results, surgical researchers have tried to present data that more realistically assess quality, adjusting for patient physiologic status and the nature of the operation. Thus, borrowing from the APACHE [Acute Physiology and Chronic Health Evaluation] system and the Goldman Index of Cardiac Risk, several groups around the world began to develop statistically sound systems to improve surgical care. Most notable among these are the POSSUM system of surgical audit used in the United Kingdom and Europe and the Veteran's Administration National Surgical Quality Improvement Program. In this issue of the ARCHIVES, we present information from the major contributors to each of these scoring systems as well as from the technique used by the cardiothoracic community employing multi-institutional databases. Furthermore, we provide personal insight into the development of the APACHE system by one of its original expounders, Dr Knaus.

In view of the fact that concomitant malnutrition portends an unfavorable postoperative risk of complications, we have included a comment by one of the leading nutritional assessment groups, with Drs Carney and Meguid presenting practical solutions to this area of evaluation.

Do we have the complete answer? As Dr Richard Schwartz and his associates
point out, we need to develop an effective “report card,” brief and simple, taking into account not only the surgical improvement aspects of quality, but the results of functional status, well-being, and costs. A successful report card strikes a balance between quality and cost, meeting the needs of our patient population.

Finally, through a commentary by Dr Shuhaiber, we present a proposal to universalize a system so that everyone can track quality of surgical endeavor and discuss pathways to clinical excellence — something we all want. To do this, we must streamline our data collection as much as possible (so as not to burden the provider), make electronic transmission possible throughout, and analyze data and provide usable information to surgeons and their patients in an acceptable time frame.

The quality of surgical care cannot improve unless we harness the knowledge and creative energy of surgeons for the purpose of redesigning the intricate process that constitutes modern health care. Are we willing, and is the public willing to pay the price?

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Readership Poll

(1) Is it possible to develop a reasonable scoring system indicating quality care in surgery?
   Yes
   No

(2) Which system would you favor?
   (a) POSSUM
   (b) APACHE II
   (c) VA System
   (d) Other

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