MANAGED CARE: THE ROLE OF OUTCOMES MANAGEMENT

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Major implications of outcomes management as they are relevant to managed care are discussed in this article. This article traces the movement from the perspective of health service researcher, the administrator or clinician executive, the clinician and the purchaser who must use such strategies as change agents in their organizations to improve quality and obtain value for the customers and payors.

Ellwood envisaged outcomes management as interrelating the quality of medical care with the cost of that care in order to assist the decision making capabilities of patients, physicians, payors and administrators. Indeed he figured that outcomes management would draw upon four developing techniques:

- Standards and guidelines;
- Measurement of patient functional well-being;
- Massive pooling of clinical and outcomes data;
- Analysis and dissemination of data that meets the concerns of each decision-maker.

Outcomes management is not simply the evaluation of the end products of the health care system. While the structure, process and outcome are obviously impor-
tant parts of a health care system to evaluate, outcomes management involves more than simply collecting data on mortality, disability and costs. The impetus toward outcomes management moves on a broad front, from the Health Care Financing Administration who first released hospital mortality statistics to the New York Times in March 1986, to a quasi-governmental concern the Joint Commission on Accreditation of Hospitals (now of Health Care Organizations - JACHO). This latter organization focused until recently on the structure and process portion. Pennsylvania now requires that hospitals report severity adjusted outcome measures to the State Hospital Cost Containment Commission. Private organizations, such as InterStudy are currently working on the development of data collection instruments that can be used nationally.

Perspective of the Researcher

As part of the Omnibus Budget Reconciliation Act (OBRA) 1986, Congress called for the design of a strategy for quality and assurance for the Medicare program. The Institute of Medicine reviewed comprehensively the possible directions and recommended that there needed to be expansion of research on clinical efficiency, effectiveness, outcomes of care and practice guidelines. Subsequently, Congress supported a number of the recommendations. In March 1990, the Agency for Health Care Policy and Research (AHCPR) was formed. This new agency, which assumed the responsibilities of the National Center for Health Services Research (NCHSR), was also charged with supporting research with respect to the outcomes, effectiveness and appropriateness of health care services and procedures in order to identify the manner in which disease, disorders, and other health conditions can be most effectively prevented, diagnosed, treated and managed clinically.

In the area of outcomes research, AHCPR has focused on Patient Outcomes Research Teams referred to as PORTs. These projects are designed as comprehensive projects that identify and analyze the outcomes and the costs of alternative practice patterns for specific conditions, determine the best strategy for treatment or clinical management and develop and test methods for reducing inappropriate variation in practice. Each of the PORTs is focused on a specific medical problem and is expected to last about five years. The initial PORTs have focused on back pain, total knee replacement, acute myocardial infarction, cataract management, benign prostatic hypertrophy, ischemic heart disease, biliary tract disease, hip fracture repair and diabetes management. Indeed, it is not surprising that with the influence of Congress all of these scenarios are important cost items in the HCFA budget.

Each PORT grant commits a significant amount of time of the inter-disciplinary team of which it is comprised. There may be physicians in clinical practice or academia, epidemiologists, statisticians, computer programming professionals, specialists in meta-analysis and medical educators working on each PORT.

Whether it is within a PORT grant or a smaller and more focused outcomes research study, there are a number of ways in which outcomes research is unique from studies which have been completed in the past. For instance, from the original work of Wennberg on variations in clinical practice, outcomes research would be focused, not just upon the observation, but upon the possible explanations for the variations and most importantly suggest the appropriate practice patterns. Furthermore, along with the variables such as cost, risk of death and disability, there is a new emphasis on patient preferences, satisfaction with services, improvement in functional capabilities, reduction of pain, and overall satisfaction with the delivery of health care services. Thus the scope of outcomes research tends to be more patient-related than procedure-focused. There is a desire to determine not only whether a certain high-cost surgical procedure is effective, but from the patient's perspective, how effective are the procedures relative to alternative therapies.

Finally, many outcome research studies have as their goals the dissemination of the important results to clinicians, administrators and patients. In other words, the outcomes researcher must face the fact that their research may have immediate clinical relevance and be used operationally, in contrast to the clinical researcher who may frequently believe that the publication of the research will be just for the benefit of other researchers in the same field and will not be used for reimbursement, physician profiling and other business operations.

At this point, it is relevant to review some of the particular tools and methodologies available for outcome researchers. The use of severity measures to adjust for differences in case mix is one of the fundamental components of many outcomes research studies. Basically, a broad categorization of such tools could divide them into disease-independent or disease-specific. In the former category, there are MedisGroups and APACHE II, and Computerized Severity Index (CSI), Disease Staging and Patient Management Categories (PMC) belong to the latter.
Another type of tool used by outcome researcher is the survey form. This may be generic or disease/procedure specific. The primary generic data collection instrument is the Health Status Questionnaire or Short Form with 36 questions (SF-36).

**Perspective of the Administrator or Clinician Executive**

As more and more care falls into the realm of managed care, so the role of the administrator becomes more crucial. Managed care, using a definition which appeared in this journal a year ago, has structure, process and an expected outcome. It is often the responsibility of the administrator of a hospital, a health care plan or organization to provide the milieu, "an organizational structure." Certainly, it is the administrator’s responsibility to provide the milieu for the process, "the use of information systems to facilitate operational decision making."

Here is the dilemma. On one hand, for instance, the administrator of a hospital is responsible for the operation which may include achieving an average length of stay commensurate with the type of hospital admissions, building a diagnostic annex or recruiting the chief of a clinical service. On the other hand, the administrator will be held accountable for an extremely poor showing in the latest HCFA mortality release. Unfortunately for the administrator, when he or she starts to look into the situation, unlike balance sheets and cost benefit analyses, the information on which the physicians base their clinical decision-making is of extremely poor quality.

To assist the administrator in the dilemma, it is relevant to examine outcomes management from both external and internal perspectives.

**External Outcomes Management**

As has been mentioned above, the *New York Times* published the HCFA mortality data in March 1986. Since then, this release has been on a yearly basis. Although it has been tempting to "explain" the results away by accusing HCFA of inaccuracies and of failing to take into account case mix, the inexorable movement of the responsible administrator has been to pre-empt further releases. For example, organizations, such as the Delaware Valley Hospital Council in metropolitan Philadelphia and its suburbs, have been developing their own mortality and cost data.

External outcomes research is also performed by health service researchers attempting to develop a single bond-like rating system for hospital quality measurement. Other powerful forces include purchaser organizations such as "Buy Right." National management care firms are moving from the simple price discounts to "value" for their volume purchases. Finally, JACHO in its "Agenda for Change" is urging hospitals to begin to understand precisely the results that they are achieving.

**Internal Outcomes Management**

Three particular programs are being increasingly imbedded within the management infrastructure of health care organizations: total quality management (TQM), improved clinical cost-effectiveness, and analyzing patient satisfaction surveys.

The relationship of outcomes management and TQM relies on the certain common elements. First, large data bases are established to act as monitoring systems. Variations in outcome in different areas and associated differences in interventions are identified. The successful programs are incorporated into practice and become practice guidelines; and those that are not are discarded. Finally the process of care is monitored, appropriateness criteria are developed and continuous changes are made.

Clinical cost-effectiveness: Information is now available on a new administrative tool that results from the merger of financial information, such as length of hospital stay and the resources used with the clinical severity-of-illness data. This tool enables the administrator to produce detailed practice profiles of individual physicians and gauge the financial impact. It should also be possible to track additional outcomes data to these systems.

Patient satisfaction surveys: The administrator has another powerful tool in the patient satisfaction survey, the output of which can be used as educational and behavior modification tools of the physicians. It can also be used for identification of weak areas in the "organizational structure" of a particular health care plan or system, and finally, it brings in the perspective of the patient.

**Perspective of the Clinician**

It is clear that clinical practice does vary substantially from physician to physician and from one community to another, and that this variability cannot be accounted for by differences in rates and severity of illness. Furthermore, it is not possible for an individual physician to keep abreast with the million and a half articles published each year in the medical literature, and here
a dilemma. On the one hand, the physician welcomes the efforts to decrease uncertainty inherent in everyday clinical decision-making, and on the other hand, objects to the erosion of professional autonomy.

Clinical Guidelines

Setting standards or guidelines for medical care and evaluating outcomes involve changing some of the fundamentally accepted aspects of medical practice. Nevertheless, three powerful forces blow in that direction. The first centers on the pure financial pressures on the health care system. The second is the rapidity with which new technology is introduced and the third, the data that shows high levels of inappropriate care and resultant waste of billions of dollars worth of resources.

As Change Agent

Although physician reimbursement is approximately fifteen percent of the health care dollar, his or her "pen" controls a total of at least eighty-five percent. Cost-effective service is encouraged by offering Medicare beneficiaries incentives to choose efficient providers who may be identified through price and practice profile, by payment incentive and by selective contracting. Finally, HCFA is entrusting a greater scope of care and cost management responsibilities to providers and other entities through the transfer of financial risk, such as in HCFA risk contracts, CABG surgery or cataract bundled programs.9

The Perspective of the Purchaser

One of the fourteen major points that Deming makes is to require suppliers to provide statistical evidence of quality. Thus, a purchaser who has espoused a TQM philosophy should be expected to require certain information from a health care system. We have moved away from the blind faith that "managed care" is the answer to the cost crisis. Moreover, the observation and questions are, "Why, if your managed care program is so successful and you have saved me 25%, do I have to pay an increase of 30% for health care this year?"

Outcomes measures are a part of the demonstration that the purchaser is indeed receiving value.

In summary, outcomes management is an invaluable application of the interpretation of relevant data and the use of managed care tools. Alone, however, it is fragile and often relegated to academic trivia. As the seat of the four-legged commitment to total quality management, a willingness to abide by practice parameters, education in clinical quality management and the system of data and information management, it is an application to support the improved quality of medical care.

References