

## GUEST EDITORIAL

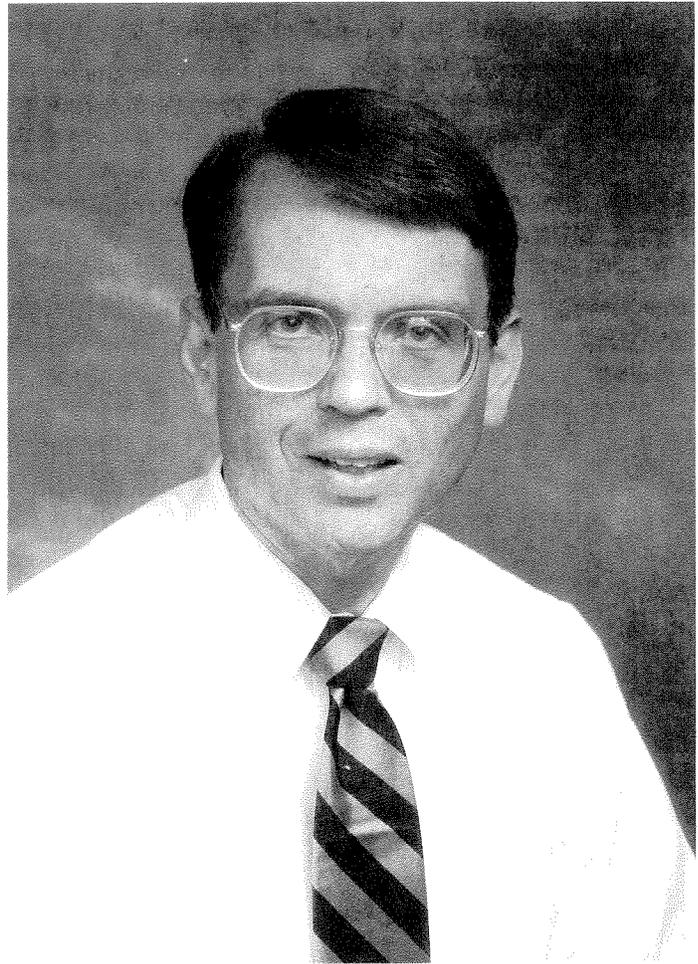
---

### Quality Improvement Process/Outcomes Research

As most people know by now, the Quality Improvement (QI) process involves the utilization of statistical process control techniques in the management of an operation or business. QI first came to national attention in the 70s and 80s with the influx of high quality manufactured goods from Japan. The techniques have been widely adopted and extended in directions far afield from manufacturing. One of these is healthcare.

In at least one respect this is troublesome, for it is but one symptom of the fact that healthcare is rapidly being converted to just another commodity to be bought and sold in the market place. It must be conceded, though, that healthcare costs have been growing at an insupportable rate, and promise to do so at an even faster rate as the population ages if something is not done. It is also difficult to quarrel with the notion that healthcare providers should use quantifiable means to make decisions about the care being rendered, be truly responsive to the needs of the customers (patients), and be able to demonstrate verifiable results. QI and an emphasis on identifying and improving outcomes are being promoted as a means to address the issues involved. With today's emphasis on healthcare being research-based, it would also seem to be a natural and easy transition to QI. However, things do not seem to be so simple.

Research into rehabilitation by means of physical restoration has produced many notable advances over the years. Such research comes to be dominated by engineers and others who have stressed the pursuit of quantitative research. This approach has emphasized the identification and isolation of a single, discreet question and the elimination of as many variables as possible. It has been marked by a definite interest in product



**Charles H. Pritham, CPO**  
*Prosthetics & Orthotics, Duke University Medical  
Center, Durham, NC 27710*

development, or a technique to produce a product or device. Individuals using such devices have been seen not as customers, consumers of services, or patients, but as research subjects, members of a representative sampling of a large population of customers/patients. The consumer of such research is not the patient, but other researchers, peers, and funding agencies. The goal has been to

produce more support to pursue more research. The QI process, regardless of its superficial resemblance in method, stands in contrast to this.

In healthcare the emphasis in QI has evolved into an interest in identifying and improving outcomes. Outcomes or results as assessed by the consumers of such services. These customers include first and primarily the patient and his/her family members. These people are concerned not just with the objective measures of their well being, but also with a wide gamut of subjective issues that affect their satisfaction with the way such services are rendered. Customers also include the managed care organizations who are determined to wring from the process as much profit as possible, allegedly without lowering quality. Finally there are the purchasers of healthcare services (not necessarily the consumers of the services) who wish to provide quality service at the lowest possible price.

In this context it has been recognized that studying matters in isolation is irrelevant, and that the true focus must lie in studying the total process from beginning to end. This approach includes studying how the consumers first access the healthcare system, how services are delivered within that system, and how the consumers eventually return to the community and a state of wellness. The goal has been to make this process as seamless as possible, eliminating needless duplication of tests and services, delays, and confusion arising from poor interdepartmental/interdisciplinary communication.

The focus of research, in QI or outcomes research, is the process itself with all its variables and lack of strict scientific controls. Qualitative research is as important if not more important than quantitative research. To the true researcher, the whole business must seem maddeningly vague and imprecise; the

improper appropriation of the scientific method to nonscientific purposes. To which it can be said, the clinicians are not too happy about it either.

In the grossest possible sense it is easy to demonstrate positive outcomes from physical restoration. An individual who was otherwise unable to walk and work productively is able to work. An another individual who was totally dependent on another for all his/her needs gains a measure of independence and self reliance, however limited. When particular outcomes are examined in more detail and compared the situation becomes considerably more confused.

While an individual may be able to walk with a prosthesis, it is difficult to demonstrate by objective means why he/her may prefer one foot to another. In a strict objective sense this could be taken to mean that objective differences do not exist. However, as any prosthetist can attest, personal preferences do exist and are influenced by more than just the practice of "voodoo prosthetics" by the prosthetist. Numerous other examples could be cited. The point is that the differences are real even if they cannot be measured by such means as gait laboratories. If information about such preferences does exist, it does so in a fashion that is poorly accessible by the clinician.

It would be a great boon to healthcare in particular and society in general if researchers would shift some of their attention to ways and means of better defining outcomes of physical restoration in advance of actually delivering the necessary services. In doing so they must recognize the clinician as a customer and strive to produce a product that is user friendly, readily utilized, and that yields clinically relevant results. Neither too much information or not enough, but just enough.

*Charles H. Pritham, CPO*