



By Walt Kagan M.D., Ph.D

Optimizing quality standards has long been the goal for medical group practitioners. The current health care environment makes achieving this objective more challenging than ever before. As providers, we strive to optimize quality patient care despite declining reimbursements and increased pressure to thoroughly document all aspects of patient care so we can more accurately gauge cost-of-service and more effectively track treatment effectiveness. Hence, the challenge lies not in consistently providing the highest levels of quality care, but doing so within the binding economic constraints of managed care.

For medical oncology practices, increased insurer vigilance surrounding chemotherapy drugs has compounded this challenge. During the past 10 years, reimbursement rates for chemotherapy agents have dropped steadily, and there are more restrictions on which drugs are allowed or paid for by insurance companies.

This comes at a time when reimbursement based on capitation rather than the traditional fee-for-service method has resulted in decreased lengths of stay for inpatients and a tendency toward treatment in the ambulatory setting. In 1996, approximately 75 percent of all chemotherapy dosages were administered in physicians' offices, in clinics, and via home infusion.'

Ironically, as cancer survival rates increase, more individuals than ever are

THE CHALLENGE LIES NOT IN CONSISTENTLY PROVIDING THE HIGHEST LEVELS OF QUALITY CARE, BUT DOING SO WITHIN THE BINDING ECONOMIC CONSTRAINTS OF MANAGED CARE.

receiving chemotherapy. Over the past several years, adjuvant chemotherapy, in which one or more anticancer drugs are used in combination with surgery or radiation therapy as part of cancer treatment, has grown significantly.

Developing a Quality Assurance Tool

At Commonwealth Hematology Oncology, the largest private practice cancer care group in Massachusetts, we continually seek ways to optimize quality in the current health care environment. With a network of 18 offices and clinical sites throughout Massachusetts and New Hampshire, and more than 100,000 patient visits and treatments a year, we took a hard look at computerized chemotherapy order systems as a critical approach to optimizing quality care.

Ostensibly, chemotherapy software systems expedite processing and recording of critical patient data, making it immediately accessible for comprehensive reporting. They also make available reports that facilitate the analysis of patient outcomes for more informed decision making, and they provide thorough documentation required for maintaining program accreditation and maximizing reimbursement.

Automated drug therapy systems also assure quality by reducing the risk of drug

therapy errors and providing system oversight. For this reason, Kenneth Kizer, M.D., undersecretary for health in the U.S. Department of Veterans Affairs, recently announced that, starting this year, the Veterans Health Administration would use computers to order and track all medications in its 173 hospitals.

To reduce the risk of drug therapy errors and optimize quality in our own group practice, we began working with IntrinsicQ Data Corporation, a software development company based in Waltham, Massachusetts, in 1996. For two years, we worked closely with Howard Silverman, M.D., president of IntrinsicQ to develop a program that was effective and easy to use. In 1998, we fully implemented IntelliDose, a customized software program that uses a dosage approach that assures the right treatment with the correct doses.

Commonwealth Hematology Oncology was the first private practice in New England to use a computer-based drug administration program in a clinical setting. One of the key features of the new software is its automated order writing program that checks against giving the wrong drug or too high a dose. IntelliDose checks patients' diagnosis to make sure they are receiving the correct treatment regimen. It also checks the patient's age, blood test results, allergies, schedule for treatment, last treatment, and weight. The system uses established guidelines for different types of cancer as benchmarks for order writing. Although we are still making final

Marching to the Quality Beat

Operationally, introducing any new system to a busy group practice is fraught with challenges. For Commonwealth Hematology-Oncology, the first was integrating the new software, IntelliDose, into our computer network, which handles communications and financial functions, including billing.

Installation of the hardware was much more straightforward. While our physicians see patients at 18 different offices and hospital sites, we currently provide chemotherapy treatment at three of our office locations. This initially limited the hardware installation to a manageable number. To implement this process, we hired an IT manager. Although this required added overhead, we believed it was critical to ensure a smooth installation and ongoing maintenance of the system. The benefits of being able to document chemotherapy treatment, prevent errors, and standardize patient care justify the investment in terms of delivering quality results.

We also relied on IntrinsicQ, the software developer, for ongoing technical support. We are still making minor adjustments and improvements to the software as we use it for patient treatment, so access to daily technical support is pivotal.

In terms of staff resistance, we hit very few hurdles. Well before becoming a clinical test site for the

of meetings with members of our office, medical, and nursing staffs to discuss the new program. Previously, chemotherapy administration was done via a system of hand-written orders and checks. Everything was recorded in the patient chart. In the wake of two disastrous and highly publicized drug overdoses at two major Boston-based medical centers, an automated chemotherapy dosage program was viewed as a quality issue. The new software was what we needed to document care, prevent errors, and standardize care of patients receiving chemotherapy.

Our clinical team members all step to the beat of the quality drum and recognize the important quality assurance tool this new system provided. We were all convinced that IntelliDose represented an opportunity to optimize quality in our practice. That's not to say we didn't occasionally long for the old ways of doing things, especially when system glitches left us a bit frayed at the edges. A series of training sessions also helped. Led by the software developer and by our IT manager, these sessions enlightened us as to the system features and operation. They also gave everyone the opportunity to ask questions, address concerns, and become familiar with the program. Staff training continues to be a valuable part of our integration process.

-W. K.

treatment guidelines for most cancers and hematological diseases. The guidelines are reviewed and revised regularly by our physicians, and continue to occupy a prominent position in our quality assurance program.

As part of our open-minded and proactive commitment to quality enhancement, we invited Pro Mutual, the largest medical malpractice insurer in Massachusetts, to review our entire practice with an eye toward potential areas of improvement. Working closely with us during a period of several weeks, professionals from Pro Mutual scrutinized our practice methods and management. This arduous process culminated in a 40-page report highlighting a number of initiatives for us to examine. These range from responding to patient phone calls to handling of chemotherapy agents. This review, which was voluntary on our part, has been a valuable and insightful quality assurance tool.

Patient Outcome Studies

We also regularly continue to monitor patient outcomes to assure that quality standards are being met. Our outcome studies in the area of breast cancer, for instance, indicate to us whether we are continuing to deliver quality care for our patients. Traditionally, patient outcome studies were limited to questions such as, How long did they live? We took a decidedly different approach, asking such questions as, What percentage of breast cancer patients had lumpectomies versus mastectomies? Did those women who should have received chemotherapy receive it? We also looked at follow-up tests such as bone scans to see if they were being used appropriately.

Outcome studies are valuable within the practice, but it's also important to compare them with those of local, regional, and national medical institutions. This provides a true yardstick with which to measure and optimize quality results.

The Quality Quest

During the past two years, much progress has been made in measuring quality. National organizations such as the Association of Clinical Oncology, the Association of Community Cancer Centers, and the National Coalition of Cancer Networks have published treatment guidelines for most types of cancer.

system enhancements, we believe IntelliDose has already significantly improved the quality of patient care we provide.

Measuring Quality and Results

IntelliDose is a critical tool in preventing errors in order writing and enables us to document care accurately and efficiently. It also allows us to improve the standardization of care, thus improving our treatment guidelines—the linchpins for quality patient care. The system also offers the benefit of measuring patient outcomes something we had identified long ago as a critical ingredient in our

quality assurance program.

Compared with our previous method of chemotherapy administration, which consisted of writing orders by hand, IntelliDose enables us to significantly enhance our quality standards for patient care.

Ongoing Quality Initiatives

While integrating IntelliDose into our quality fold, we continue to pursue other quality initiatives. In 1996, we began documenting guidelines for use in the treatment of specific illnesses. Treatment guidelines ensure quality care by reducing or eliminating redundancy and maintaining consistency of care. Today, we have adopted comprehensive

The investment of time and dollars in standardization of care is not about trying to fit all patients into one treatment template, but rather to make treatment for certain cancers more efficient, reduce redundancy, and most of all, optimize quality of care.

In Massachusetts, several initiatives, which continue to develop, will affect quality of care. The Massachusetts Society of Clinical Oncologists has made progress in convincing insurers-including HMO Blue Cross Blue Shield-to pay for experimental treatments for cancer. This is a critical way of improving quality care. The group has also filed legislation to reduce red tape that produces payment backlogs by insurers, sometimes resulting in six-month freezes of benefit payments to private practices and hospitals. Such tactics severely strain providers' ability to deliver quality care on a consistent basis.

Markers for the Quality Pall

Ultimately, the patients themselves are the most crucial indicators of quality care. If we are not providing a caring environment where patients with serious illnesses feel they receive compassionate, individualized care, then we are not fulfilling our quality quest. All trails lead to patient satisfaction, and only by asking patients about their experiences can we effectively measure the results. One of our major goals for 1999 is to identify an effective patient satisfaction measurement tool. This will be an invaluable addition to our quality assurance effort.

The quality trail is long and arduous, with many twists and turns along the way. It's easy to get mired in the underbrush of cost containment, capitation, and HMO mandated care guidelines. It requires a steadfast commitment to steer clear of these distractions and keep quality as the focus in our journey to deliver patient care. Only when this occurs will the quest for optimizing quality-the Holy Grail of all group practices-truly be within our grasp.

References

1. Thomas W. Ross, M.S., RPH, and Jodi R. Wojdylo, Pharm.D. 1997. Identifying Sources and Reducing Potential for Chemotherapy- Related Errors: Mission Impossible? *Oncology Pharmacotherapy*. Nov./Dec. 1997.
2. American Cancer Society. 1991. Issues in Cancer Care and Economics. *Proceedings of the Sixth National Conference on Cancer Nursing*.

Walt Kagan, M.D., Ph.D., is president of Commonwealth Hematology Oncology, headquartered in Quincy, Massachusetts. He is founder and past president of the Massachusetts Society of Clinical Oncologists.