

Data-driven changes, pathways, and physician buy-in

Sherry Boschert

Improvements in the quality of health care don't just happen. They're created, in physician practices large and small, and driven by the desire to improve. Three oncologists, one in a solo practice, a second practicing in a midsize group, and a third in a large medical system, spoke at the 2012 ASCO Quality Care Symposium in San Diego about their quality-improvement initiatives — what they're doing, how they're doing it, and the obstacles they face in their efforts to improve the quality of cancer care.

The solo practice: a team effort

Making the changes that will improve care in medical oncology “really starts with one medical oncologist at a time,” said Dr. Carolyn B. Hendricks, whose independent private practice in Bethesda, Maryland, sees an average of 350 new patients a year. Patients come to her mainly with breast cancer, but ovarian cancer and genetic counseling also are a practice focus. Dr. Hendricks is in an “intensely competitive practice environment,” with a high concentration of oncologists within a 25-mile radius of her office. Demonstrating a higher quality of care in her practice not only would help her patients but could also draw new patients to the practice and help sustain her referral base, which is the lifeblood of solo practices.

Dr. Hendricks enrolled her practice in ASCO's Quality Oncology Practice Initiative (QOPI) in 2006, and her first 2 years of participation resulted in rapid and significant changes in 3 clinical areas: the practice began to systematically use pain scores, it modified chemotherapy flow sheets, and she and her colleagues began to use aprepitant for highly emetogenic chemotherapy regimens. From that point on, Dr. Hendricks scheduled regular meetings with the whole staff to review the QOPI measures, identify anything in which they scored less than 90%, and devise relatively simple projects to improve their scores.

“This is definitely a team effort” in a small practice, she said. Her staff typically consists of 1 to 3 oncologists, 1 or 2 nurse practitioners, 1 or 2 infusion nurses, and a nursing assistant, some of whom job-share rather than work full time. Clerical staff members, supervised by nurse practitioners, were trained to do data entry, and the nursing assistant was trained to capture patient distress scores, family history, and other clinical data.

In 2009, the team members aimed to make sure that patients' emotional well-being had been assessed by the patient's second office visit. In 2010, they added a focus on incorporating care plans for moderate to severe pain and a goal of completing the chemotherapy treatment summary process within 3 months of chemotherapy initiation. The practice earned QOPI certification in 2010, the first time certifications were available to all comers, not just pilot project participants.

Small practices need to be at the table when quality issues are addressed.

— Carolyn B. Hendricks

In 2011, a new goal was to ensure that infertility risks of therapy and fertility preservation options were discussed with patients of reproductive age before chemotherapy was initiated. In 2012, advanced directives had to be documented by the patient's third visit, and oral chemotherapy documentation was to include the plan, the schedule, monitoring, follow-up, education, symptom management, toxicity, and adherence data. The documentation “is an extremely challenging project,” she noted.

Meanwhile, the practice began shifting to electronic health records (EHRs). In 2007, a relatively inexpensive system (no start-up cost, \$1,200 annual maintenance fee) replaced paper chemotherapy orders, which allowed for computerized physician order entry, clinical alerts, an interface with an automated drug-dispensing cabinet, and other features. Paper charts were replaced by very expensive practice management software in 2009



Small practices should make time for quality improvement and engage the entire practice staff in achieving those goals, says Dr. Carolyn Hendricks (left) of Bethesda, Maryland.

(\$30,000 upfront, \$9,000 annually for maintenance, and \$450 monthly for statements), which in retrospect, she would not recommend. The data collection helps her see which goals are being met, or where the practice is backsliding after improvements, but it's still a time-intensive process.

In 2012, Dr. Hendricks and her staff tried to modify chart components for easier electronic chart abstraction and analysis of the elements needed for QOPI assessment. Chart abstraction times have decreased significantly since the practice started using EHRs in 2009, but it still takes 2 staff members 45 minutes to do 2 modules (the breast module and symptom/toxicity) on 1 patient, for example.

Numerous other challenges with the EHR data entry have been uncovered while doing all this. Some of them can be fixed, but "I don't see that my current systems are going to be able to meet the needs," she added.

The practice is getting ready for QOPI recertification. In the future, Dr. Hendricks plans to incorporate new QOPI measures and to continue to be an early adopter of "all the quality programs that I'm aware of that will accept an individual who is in a solo practice," she said. "Small practices need to be at the table when these quality issues are addressed."

She recommended that small practices make time for quality improvement and apply for QOPI certification, and engage the entire staff. Transition to EHRs and learn how to use them, she added. Focus on accurate and complete data entry, starting with small, single-measure improvements. If you do this, Dr. Hendricks said, you can spread the word about the quality of your practice.

The midsize group: change what you're doing based on results

Dr. John D. Sprandio and his colleagues used data collection to transform their 9-physician oncology consulting group into an oncology patient-centered medical home. They now have the numbers to show greater adherence to care guidelines, fewer hospitalizations, increased use of hospice, and greater likelihood of death occurring in the home, where most dying patients prefer to die.

In 2000, they focused on internal data collection and by 2001 they were able to enhance one payer contract based on emergency room data that had been manually collected and reported. The oncologists in the group believed they were practicing good patient-centered care, but the more they measured what they were doing, the more they found variations among the physicians. "We had to really admit that we were practicing 'eminence-based medicine' — [we were] providing suboptimal medical care with increasing confidence over an impressive number of years," said Dr. Sprandio, who is the chief of medical oncology and hematology for Consultants in Medical Oncology and Hematology, which serves 4 sites in 2 health systems in suburban Philadelphia, Pennsylvania.

To tighten up performance consistency, they implemented EHRs in 2004, which was "a disaster," Dr. Sprandio said. Over several months, he spent a lot of time talking with the information technology team to incorporate features into the EHR such as standardized data collection and presentation, clinical decision support, and tools that could ease physicians' burdens in documentation and communication.

Midsized groups are large enough to consider the new EHR technology yet small enough to make quick and substantive changes, making quality improvements a regular feature. In many ways, the midsize group has been the foundation of oncology and will hopefully continue to be so with its ability to adapt to change and the new knowledge of oncology and the means to implement it.

— David Henry

They ended up developing a software overlay that "is at the crux of our ability to deliver patient-centered care" in a model that meets National Center for Quality Assurance (NCQA) criteria. "A lot of the data that we collect is automated in real time by this overlay," he said. It allows for longitudinal views of the success of palliating symptoms, for example, or how well physicians meet performance measures. It serves up data on individual patients in a user-friendly format before each visit and eases the documentation process.



After introducing quality improvement measures in his midsize practice, Dr. John Sprandio and his partners saw the average number of admissions per chemotherapy patient drop by more than 50% in 4 years.

With the system in place, they re-engineered their processes of care between 2004 and 2011 by incorporating a variety of oncology guidelines for standardization. “You don’t have to get it right” initially, Dr. Sprandio explained. “You just have to do it consistently, measure what you’re doing, and start to change what you’re doing based on results, on a continuous basis.”

In 2011, the average number of admissions per chemotherapy patient per year decreased by more than 50%, from 1.1 in 2007 to 0.5. The average number of emergency room evaluations per chemotherapy patient per year decreased by more than 66%, from 2.6 in 2004 to 0.8.

The average turnaround time between a patient visit and faxing a completed physician note was an “abysmal” 28 days in early 2010 but now is less than 2 days, and that has become a key ingredient in giving nurses who do telephone triage the information they need to help patients.

In 2010, the group earned QOPI certification and recognition as an NCQA level 3 patient-centered medical home.

Over time, adherence to National Comprehensive Cancer Network (NCCN) pathways for chemotherapy care plans increased by more than 80%. Between 2009 and 2011, the average length of a patient’s stay in hospice increased by 35%, from 26 to 35 days, respectively. More patients died at home (75% in 2011, compared with 70% in 2010). The rate of admissions during the last 30 days of life decreased from 39% in 2010 to 36% in 2011, and the rate of emergency room visits during the last 30 days of life decreased from 24% to 20% for the same years. Unscheduled visits increased until 2010, then declined in 2011 and probably were even lower in 2012, Dr. Sprandio said.

The quality improvement model they’ve used for care delivery “aligns oncologists for any payment changes that are going to come down the pike, whether it’s an accountable care organization or clinical integration of the health system,” said Dr. Sprandio, who also directs the Delaware County Memorial Hospital Regional Cancer Center, Drexell Hill, Pennsylvania. “This model probably will be transitional to a bundled payment model, which will be thrust upon us long before many of us are ready to accept it.”

The large system: pathways and physician buy-in

The University of Pittsburgh Medical Center’s CancerCenter treats about 74,000 patients annually at its 25 sites. In 2004, the center began creating cancer care pathways to guide its 1,700 staff members, of whom 120 are oncologists, in treating their patients. A survey among oncologists had found great variation in how they practiced, and the CancerCenter wanted to steer its oncologists toward practicing evidence-based care; measuring the delivery of care; standardizing their practices to improve safety, patient outcomes, and efficiencies; and increasing patient enrollments in clinical trials.

The center also wanted to tackle the rising costs in medical oncology to forestall potentially disruptive cost-reduction initiatives from payers, according to Dr. Peter G. Ellis, the director of medical oncology network for the center. “We had one dominant insurer in western Pennsylvania that was very concerned about the rise in oncology costs, and it was developing its own ways of managing those costs, some of which we thought were not in the best interests of our patients.” The CancerCenter reached an agreement with the insurer to allow the center to try to standardize the care it delivered and to reduce the costs of care.

Dr. Ellis and his associates also figured that using the pathways would help them communicate the advantages of being treated at the center to value-conscious consumers and prepare for health care reform initiatives such as accountable care organizations and patient-centered medical homes. The pathways, they hoped, also would help clinicians access the increasingly broad and complex body of oncology knowledge, which is “especially more critical as we drive to genotype-based personalized medicine,” he said.

They convened disease-specific committees, each co-chaired by an academic and a community-based oncologist, to define the states and stages of disease that require treatment, review the clinical literature for each, and reach consensus on the single best recommendation for each state, stage, and presentation of disease, including com-

mon comorbidities. The consensus process was key, with the cochairs finalizing decisions, Dr. Ellis said, noting that only 6% of NCCN guidelines are based on level 1 data. All of the physicians who used the pathways were invited to participate in the disease committees.

As oncologists, our primary responsibility is to give the best care for our patients. As members of large a health system and responsible members of the society, it is important for us to be sensitive about health care costs. Development and adherence to evidence-based care pathways will help us to achieve both.

— Jame Abraham, MD

The goal was to “define therapy for 80% of presentations. We are not going to develop pathways for 100% of patients who walk in the door. There is an art to what we do,” and not all patients will fit into the pathways, Dr. Ellis said. Physicians were able to access the pathways through a user-friendly computerized tool when they were making decisions for individual patients.

They first created pathways for breast, lung, colon, and prostate cancers in 2004, and gradually added many more cancers in subsequent years.

Data from the first 9 months of use (January through September 2012) showed that physicians used the pathways for 95% of 142,000 office visits, and 79% of the 10,346 treatment decisions in those visits followed the pathways. The rate of on-pathway decisions was 77% for non-small-cell lung cancer, 80% for colorectal cancer, and 86% for breast cancer. The highest rate of on-pathway decisions occurred in melanoma (93%), and the lowest rate was in multiple myeloma (61%).

Physicians’ participation is fundamental to success, said Dr. Ellis. Make sure they know it’s okay to go “off pathway,” and incorporate physician feedback about pathways for continual improvement. Emphasize the value of pathways to drive standardization and reduce errors, improve outcomes, measure success and outcomes, and improve ef-

ficiencies in the modern era of health care reform. Support and prioritize clinical research to solidify physician buy-in.

Perhaps most important, make the pathways easy to use, Dr. Ellis said. He and his colleagues developed a computerized point-of-care tool that physicians use when deciding on treatments that are patient specific and personalized and that interfaces with the practice’s scheduling applications and EHR system.

Don’t ask physicians to input data that isn’t pertinent to making the treatment decision, but make sure the critical questions are required fields, he said. The system can send daily notifications of missed patients or data and can generate reports on individual physicians that are benchmarked to the performance of their peers.

It helps to give users of pathways some extras that can make their day a little easier, such as patient education materials, evidence reviews, clinical references and full-text articles, dose-modification guidelines, and staging calculators. The system embeds the option of enrolling patients in practice-specific clinical trials at appropriate decision points in the pathways and requires that reasons for not enrolling patients in trials be listed so they can be reported to the primary investigators.

There are quarterly webinar meetings of the disease committees to maintain the pathways. The participants review new evidence, debate possible changes to the pathways, and review any portions of the pathways that drew adherence from less than 70% of physicians, including the reasons cited for divergence recommendations and the regimens that were used instead. To succeed, oncologists who see patients must be the ones who develop and maintain the pathways, which must be delivered in user-friendly interactive tools that push the oncologists to adhere to the pathways they create, Dr. Ellis said.

Dr. Hendricks and Dr. Spradlio reported having no financial disclosures. Dr. Ellis has been employed by, owned stock in, or received honoraria from Cancer Treatment Services International, D3 Radiation Planning, and Via Oncology Pathways.