SISTERS OF MERCY HEALTH SYSTEM
Taking the Measure of Quality

Over the past six years the St. Louis–based Sisters of Mercy Health System's (SMHS's) Quality Management Department has developed an array of tools to measure clinical quality, report results to system members, and guide interventions to improve performance.

DATA SOURCES
A system task force convened in 1987 concluded that effective methods of measuring quality would be critical to the success of quality improvement efforts. "We wanted to be able to base our analyses and recommendations on facts rather than impressions," explains Tom Munley, SMHS vice president, administration.

Lawrence O'Neal, MD, who came on board as the system's medical director in 1988, extensively researched ways to obtain data on hospitals both within the system and throughout the United States. Rather than create a new data base, O'Neal concluded that the UB-82—an existing data base—contained the information SMHS would need to pursue its quality initiatives.

The UB-82 (Universal Billing, 1982) data base can be a useful source of information. "It summarizes from a billing perspective everything that happens to a patient," explains O'Neal, "and it is the only existing data base that covers everybody entering a hospital."

System hospitals send patient-level discharge abstracts to the SMHS Quality Management Department on a regular basis. The abstracts, which contain all elements in the UB-82, are collected uniformly on all inpatients at the time of discharge. The process has worked well, O'Neal explains, "because we ask hospitals to supply us, for the most part, with data they must already collect, so we don't impose an additional burden on them."
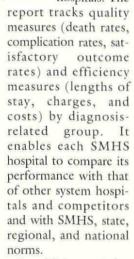
To help the quality management department transition the UB-82 data base to one of more clinical relevance, hospitals are also asked to abstract a small list of additional data elements (e.g., newborn birthweight, maternal-neonatal link, anesthesia type).

"The addition of just a few selected clinical indicators improves the predictive power of the information available in the UB-82," O'Neal says.

SYSTEM REPORTS
Using the data, SMHS provides an annual Hospital Quality and Efficiency Report (HQ&ER) to all system hospitals. The report tracks quality measures (death rates, complication rates, satisfactory outcome rates) and efficiency measures (lengths of stay, charges, and costs) by diagnosis-related group. It enables each SMHS hospital to compare its performance with that of other system hospitals and competitors and with SMHS, state, regional, and national norms.

In addition to helping hospitals focus on areas where improvement is possible, the HQ&ER has been a source of comparative information for managed care negotiations. It has also prompted hospitals to request customized studies on a specific procedure or disease, helped them decide which clinical pathways to develop (discussed later), and enabled them to identify opportunities for developing multidisciplinary teams.

The quality management department also conducts annual systemwide clinical quality studies on various high-risk, high-volume, or problem-prone diagnoses and procedures. The studies provide comparative analyses of admission and discharge patterns, patient characteristics, patient outcomes, and resource consumption. To date, the department has studied pneumonia, stroke, acute myocardial infarction, carotid endarterectomy, orthopedics, transurethral resection of the prostate, and cesarean surgery. Once a study has been initiated, SMHS provides annual follow-up reports, which portray trended results.

Finally, SMHS has provided numerous customized studies in response to requests from medical staff, hospital staff, and administrators. The customized studies have focused on a variety of diagnoses and procedures and provide more detail than the other reports.

IDENTIFYING VARIATION
The thrust of the quality management department's data gathering and reporting efforts is to identify practice pattern and outcome variations at system facilities. "We don't pass judgment on whether the variation is good or bad,"

Clinical Pathway Development: Success Factors

- Active, visible executive leadership
- Resource availability (e.g., staff, money, printing service, continuing education)
- Medical staff leaders who understand what clinical pathways can achieve
- A conducive local environment (e.g., presence of a managed care plan)
- Broad administrative and managerial participation in necessary changes
- Early success stories
- Strong clerical support
- Effective, ongoing education

Munley explains. "The point is to get the information to our institutions, so they can find the cause of the variation and decide what to do about it."

SMHS had to overcome some initial resistance to make the program a success, Munley reports. "The first reaction people have in going through the process is, 'The information is wrong.' We had to educate our own administrative staff as to the richness and potential uses of these data. After that, it took interaction with and education of managers and medical staff at our institutions. But you have to be patient and go through that, because what you want to achieve is self-directed adjustment of behavior—and that's tough to achieve."

CLINICAL PATHWAYS
The variations revealed in early quality management department studies demonstrated a need to improve operations at a number of the system hospitals. At the same time, members of the quality management team began to review what form total quality management (TQM) should take in Catholic healthcare. The team soon recognized that TQM activities

should have a clinical focus that touches the ministry's core—taking care of people. In looking for a method to track and improve the patient care process, the team concluded that supporting SMHS hospitals in the development of clinical pathways would be the best way to achieve that goal.

Clinical pathways are detailed plans of care for specific diagnoses and procedures. "It just made common sense to encourage hospitals to develop multidisciplinary plans that document and sequence care for a particular type of patient," says Jolene Goedken, SMHS director, quality management.

To introduce the specifics on how to develop clinical pathways, SMHS sponsored a systemwide conference in November 1992. Participants included physicians, nurses, and administrators. Presenters at the two-day seminar explained what clinical pathways consisted of, what hospitals have done to begin implementing them, and how they can be used to improve operations. Goedken also arranged site visits to hospitals outside the system in July 1992 and March 1993 to enable representatives from SMHS

Jolene Goedken, SMHS director of quality management, frequently conducts educational programs on clinical pathways at system hospitals.

hospitals to see first-hand how clinical pathways work and report back to their facilities. A second seminar, planned for December 1993, will be cosponsored by the system and St. John's Regional Health Center, Springfield, MO.

St. John's has recently implemented its 53d pathway and has 30 more in active development, according to Vice President Rebecca Cherry. "The administration has given us the leadership and the resources we need to make the program work," she says. The hospital plans to implement pathways in all acute care specialties (about 140 areas) by May 1994. Cherry reports that the pathways have significantly reduced resource use and lengths of stay for a number of procedures and diagnoses.

For example, by giving orthopedic patients physical therapy and social service screens before they

come to the hospital, St. John's has cut their average stay by about one day. Clinical pathways have also helped the hospital improve its pain management protocol and discharge planning. A list of factors that Cherry believes are important to the success of a clinical pathway program appears in the **Box.**

Goedken has also developed a clinical pathway resource guide to help facilities learn from the successes and problems experienced by other SMHS members. The guide includes copies of all completed or draft clinical pathways at system hospitals, instructions for using pathways, routine physician orders that are part of the pathways, patient versions, variance tracking forms, and other relevant information.

STRATEGIC DIRECTION
The decision to develop resources to help facilities create clinical pathways has been a

response to the SMHS vision statement, Vision 2000, which calls on the system to "excel in the measurement, management, and delivery of clinical and service quality" and to "pioneer innovative health care delivery models."

The key to the success of the pathways, O'Neal emphasizes, will be the extent to which they enable SMHS and its member hospitals to measure procedural inefficiencies or breakdowns and identify their causes.

"It is an iterative process," O'Neal says. "The pathways establish an effective *and* efficient approach to delivering care and help the hospitals identify where deviations occur.

Hospitals and physicians who identify significant variances can take action to remedy the problem and then use the pathway again to check the effectiveness of their intervention."

—Phil Rheinecker