Taking the Measure of Measures: Quality Data Initiatives and the Challenge of Effective and Efficient Data

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Tracking case outcomes helps improve care and create efficiency. But without universal reporting standards, the workload for hospitals is heavy and the data lacks uniformity.

There are only so many hours in a day. Take the case of New Jersey hospitals.

The Leapfrog Group rates hospitals based on voluntary reporting. Its members—more than 160 Fortune 500 companies and other large private and public organizations—seek out high-performing healthcare organizations and direct their employees to them for care. Clearly, hospitals have an interest in appearing on the Leapfrog list.

Thirty of New Jersey's 82 acute care hospitals participated in Leapfrog's initial three "leaps" by completing a 20-page survey. With the fourth leap, which requires the manual completion of a survey that, including instructions, runs to 100 pages, the number of participating hospitals dropped to 13. Many hospitals lack the time, the staff, and budget to participate in surveys that are not required by federal or accrediting bodies.

A rising tide of requests for outcome data is putting a strain on hospitals. Adding to that strain is a lack of universal standards among the programs, which adds to the workload of collecting and reporting the data. More importantly, the lack of standards creates significant challenges to achieving reliable, uniform data.

The Rise of Outcome Measures

More than 20 years ago, the implementation of diagnostic related groups (DRGs) for Medicare reimbursement raised awareness of the importance of healthcare quality data and the related role of health information professionals. The need for accurate, complete documentation to support resource use was the first step toward managing healthcare costs. It also produced a standardized method for capturing patient clinical data for research, statistics, and treatment protocols.

Fast forward to the 21st century. Pay for performance now links this same clinical data to quality of care, rewarding organizations for quality outcomes. Using a variety of methods such as evidence-based medicine or severity adjustment methodologies, the federal government, Joint Commission on Accreditation of Healthcare Organizations, and private payers are linking reimbursement and accreditation to quality.

The public is studying clinical data, also. Consumers use quality data reports to evaluate hospitals. Employers direct their employees to highly rated healthcare organizations, seeking to lower the company's out-of-pocket expenses and promote the health of their work forces. Boeing in Seattle pays 100 percent of healthcare fees (after deductible) for employees who use hospitals that meet Leapfrog standards; employees who choose to go elsewhere pay 5 percent of the bill.[1]

Hospitals themselves use the data for quality improvement. The Centers for Medicare and Medicaid Services (CMS) promote efforts to provide hospital quality information to consumers and others and to acknowledge quality improvement activities in hospitals. The Hospital Quality Initiative demonstration project is a three-year voluntary program with 290 participating acute care hospitals. The goal is to improve patient care, resulting in better outcomes at reduced cost.

Beginning with third-quarter 2003 data, hospitals participating in the CMS project submit data for selected conditions: acute myocardial infarction (AMI), congestive heart failure (CHF), pneumonia (PNE), coronary artery bypass (CABG), and hip and knee procedures. These conditions have high volume and high cost and therefore have the largest amount of evidence-based research.

Barriers to Reliable Data

Although the initiatives share the common goal of improving quality and efficiency of care, the current fractured state of the reporting process hinders their efforts. With different initatives come differences in parameters and analysis. Data collection is inconsistent, coding rules and guidelines are not aligned with indicators, and indicator definitions are vague, leading to conflicting clinical interpretations. The result is often frustration for hospital staff and conflicting data for end users.

Varying Definitions

Indicators for quality of care are the same among the projects; however, the criteria for the indicators vary between agencies. For example, the Joint Commission and CMS each request data on the treatment of percutaneous transluminal coronary angioplasty cases. To the Joint Commission, criteria for appropriate care is time to puncture of the blocked vessel within 90 minutes of hospital arrival. The CMS criteria for the same indicator is time to lesion access within 120 minutes of arrival.

Multiple definitions such as these result in conflicting data. When this data is converted into hospital rankings, the likelihood that it helps a consumer make an informed decision lessens.

For hospitals, reporting accurate and meaningful data requires internal buy-in, and that can be difficult to obtain when staff sees that outcome measures are inconsistent. The CMS demonstration project, for example, uses the Joint Commission method to measure AMI, the 3M APR-DRG risk adjustment method for coronary artery bypass graft and hip and knee procedures, and the AHRQ model for postoperative safety indicators. Each model's reliability is not in question; it is when the models are combined that a problem occurs. Staff physicians are likely to discount the data because they cannot understand why the hospital can have a good rating with CMS but not with its state agency that may use a different rating method.

HealthGrades, a private, for-profit ratings service, offers consumers, employers, and health plans a free Web site for comparing area hospitals. Healthgrades uses publicly accessible information found in the MEDPAR database, the repository for all Medicare billing data. It applies a risk adjustment method to measure results against expected outcomes. The method uses principal diagnosis, secondary diagnoses, and procedures in addition to patient age, discharge status, and social history to assign patients a severity level and expected outcome (i.e., complication rate). Different clinical characteristics place some patients at higher or lower risk for the clinical outcomes being assessed.

Because HealthGrades uses only the Medpar database, its data set is more limited than those of other initiatives, which use abstracted data. The MEDPAR database only holds nine diagnoses and six procedures, resulting in fewer codes for risk adjustment. If hospitals, according to their own policies, do not report comorbidities on claims forms, their eventual outcomes scores may be lower than those hospitals that do record comorbidities.

Discrepancies between Coding Rules and Indicator Definitions

Indicator definitions are often at odds with coding guidelines or physician clinical thinking and care processes. Abstractors must articulate to other staff what is included in the definition documents, such as the algorithms (which define the criteria for including or excluding a case), data definitions, and abstracting guidelines. In each instance, there is opportunity for interpretation.

The concept of working diagnosis, for example, is considered for the inclusion or exclusion of a pneumonia case in the study. Working diagnosis is defined as that diagnosis being considered as possible prior to the physician's decision to admit the patient to the hospital. In contrast, the principal diagnosis for coding purposes is that diagnosis after study to be chiefly responsible for the patient's admission to the hospital.

When clinical interpretations do not align with coding guidelines, project team members need education regarding both the indicator guidelines and coding guidelines. When the project team disagrees with the evidence or abstracting guidelines, the sponsoring agency should be contacted. If the team disagrees with the coding guideline as it relates to a specific case, a documentation improvement action plan is initiated.

Differing Submission Schedules

Submission for the CMS 7th Scope of Work (the annual mandatory quality project for all hospitals) is monthly; the Joint Commission core measures and the CMS demonstration projects are quarterly. Differing submission schedules increase the work required of hospitals to coordinate workflow and timely submissions. Efforts are under way to align the submission schedules.

Increasing Requests

The number of cases abstracted and the number of indicators requested continue to increase, requiring hospitals to allocate greater resources for data collection. In 2002 the 7th Scope of Work required a sampling of 10 charts per diagnoses. In 2003 the case selection requirement increased to 100 percent for each diagnosis, putting additional stress on clerical and technical staff.

As the volume of requests rises, many hospitals are faced with dropping out of voluntary reporting programs. The inefficiencies of the present system have the potential to hinder its valuable goals—as in the case of New Jersey hospitals and Leapfrog ratings, for example—leaving employers and their employees with a shrinking pool of hospitals to choose from.

The incomparability of the data requested directly affects the cost of providing such data. Without standards (and in the absence of electronic health records), the cost to hospitals will remain high and will continue to increase as the demand for more data exceeds efficient methods to collect and report it.

The Hackensack Story

Hackensack University Medical Center (HUMC) is a 680-bed tertiary facility in northern New Jersey. The facility participates in many data reporting initiatives, including the Institute for Healthcare Improvement Pursuing Perfection grant, the CMS Hospital Quality Incentive demonstration project, and New Jersey Health Department and Senior Services programs. Some projects are mandatory, such as those administered by the state and the Joint Commission. Others, such as Leapfrog, are voluntary.

When data reporting requirements increased with CMS's 7th Scope of Work, HUMC determined that advanced practice nurses could no longer take time from their patient care responsibilities to collect, collate, and report findings. In addition, there was a need for greater understanding of coding and abstraction, an integral component of data collection and analysis. As neutral participants removed from direct patient care processes, HIM-credentialed staff joined the disease-specific project teams.

CMS requires reporting on AMI, CHF, PNE, and surgical infection prevention. Each quality measure has its own set of indicators, and each indicator has a set of abstracting guidelines, data definitions, and algorithms. For example, AMI has eight indicators. Within these indicators there are 42 questions, and each question has its own algorithm. Clinical data analysts (CDAs) are the organization's experts at identifying, collecting, and interpreting this information and educating the project team members.

Seven and a half full-time equivalents serve as health information CDAs. The staff includes three full-time registered nurses, one part-time physician, and four HIM professionals with RHIT and CCS credentials. The team is led by an inpatient coding manager who reports to the director of health information. The inpatient coding manager and the director of health information spend at least 30 percent of their time supporting staff needs and meeting with and educating physicians, both hospital-based and residents.

Three of the CDAs are responsible for focused DRG reviews. The remaining CDAs are responsible for data abstraction, error adjudication, reporting to project teams, and identification of opportunities for documentation improvement. On average, it takes approximately 53 minutes per case to complete these tasks. At the monthly project team meetings, the CDAs report the number of cases in studies, indicator variances, and outcomes in the form of composite measures. In addition, as time permits, the CDAs participate in multidisciplinary rounds with physicians and other clinicians to improve documentation prior to patients' discharge. They currently abstract an average of 500 cases per month to meet the hospital's various reporting requirements.

Educating clinicians on the importance of complete and accurate documentation is a never-ending task. The team is continuously challenged to interpret less-than-complete documentation as it relates to coding or project definitions. However, the necessity is recognized at the highest level within the organization and more attention and resources are focused on documentation improvement strategies.

"We realized that knowledge transfer needed to occur between HIM and our clinicians," says Gerard Burns, MD, chief of medical informatics. "This is actively being done now." With the advent of prospective and real-time abstraction, Burns notes, clinicians and HIM staff are communicating more than ever, each learning from the other.

HIM and Quality Information

HIM professionals play a crucial role. They supply the final product—coded data—and they ensure the completeness and integrity of that data. HIM professionals are best positioned to recognize any disconnects between the rendering of care and the coding that reflects this care. They are also best positioned to connect data reporting requirements to the documentation provided by the medical staff. They provide a neutral view toward improving chart documentation by contributing vital input to the improvement of patient outcomes.

This requires working closely with physicians and clinical staff. The complete story of patients' acute and chronic conditions and treatments rendered are the foundation for determining severity and outcomes scores. Concurrent documentation improvement initiatives are critical to resolving misunderstandings between the clinical thought process and the coding rules. These initiatives are shown to be highly effective compared to retrospective processes for clarification of vague or incomplete documentation. The collaborative environment of the concurrent process not only eliminates the delay in obtaining information and negates the need for postdischarge queries, but it also promotes opportunities for real-time process improvement in the provision of care.

Perfectly provided care, of course, is not always accompanied by perfectly documented care. Obtaining accurately coded data must be an organizational priority. This is the first step in improving data reliability, ultimately leading to improved care.

Using the principles of performance improvement in conjunction with coding and documentation expertise, HIM professionals are positioned to collaborate with clinicians and other professionals including performance improvement, information technology, informatics, and executive leadership to ensure the data demonstrates quality. As documentation improves, coding improves. The outcome is quality information that tells the story of quality healthcare practices.

Who, What, When

Reporting Agency, Data Source, Case Type, and Submission Timelines

Agency	Origin of Data	Case Type	Payer	Submission Schedules	Reporting
CMS 7th Scope of Work www.cms.hhs.gov	Abstract data	CHF, AMI, PNE SIP: hips & knees, vascular, OB, colon, CABG	All payer Medicare	Monthly	100%

CMS Hospital Quality Incentive demonstration project www.qualitydemo.com	Abstract data, Medpar data compared to expected rates Medpar data risk adjusted using APR/DRG	CHF, AMI, PNE, CABG SIP: hip & knee	All payer Medicare only	Quarterly	100%
Joint Commission www.jcaho.org	Abstract data	CHF, PNE	All payer	Quarterly	20% sample
Leapfrog Group www.leapfroggroup.org	Self-completed survey (100 pages)	National Quality Forum quality indicators	N/A	Annual	N/A

AMI: acute myocardial infarction; CABG: coronary artery bypass graft; CHF: congestive heart failure; PNE: pneumonia; SIP: surgical infection prevention

Note

1. Huff, Charlotte. “A Leap into Better Care.” *Workforce Management* (November 2004). Available online at www.workforce.com/section/02/feature/23/87/85.

References

AHIMA. “Testimony of the American Health Information Management Association to the Workgroup on Quality of the National Committee on Vital and Health Statistics.” September 14, 2004. Available online at www.ahima.org/dc/AHIMATestimonytoNCVHSWorkgroup.cfm.

Panico, Mary, Debra Hall, Regina Berman, and Barbara Siegel. “Improving Patient Care through Data Quality Management of Regulatory Reporting of Outcome Measures.” Paper presented at the AHIMA 76th National Convention and Exhibition, October 2004.

Scalise, Dagmara. “Evidence-based Medicine.” *Hospitals & Health Networks* (December 2004). Available online at www.hhnmag.com/hhnmag/jsp/hhnonline.jsp.

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