Strategic Alignment

Beyond Turnaround Time: The Business Case for Quality in Radiology

by **George Wiley** on *November 06, 2013*

With cost containment driving many health-care decisions, the temptation exists for hospital executives to judge a service line on speed and efficiency (and to overlook quality). In a service line such as radiology—for which accuracy is not easily assessed and quality measurements are not consistently reported—the inclination might be even stronger.

The problem is not a lack of quality indicators, according to Ben Lauing, analyst for the Advisory Board Co. "There are certainly enough radiology quality metrics out there," he says. "Some radiology providers are compiling a master list of metrics. The question is this: Which ones tell the most about what they do?"

The answer to that question is important because it has the potential to determine whether a hospital's bottom line is written in red or black ink. The quality measures that hospitals typically look for from radiology providers include report-turnaround time, the effectiveness of interventional procedures, radiation-dose monitoring, and subspecialty interpretations, according to James Burke, MD, chief physician executive and senior vice president of Scottsdale Healthcare in Arizona. The radiology measurement with the greatest impact on a hospital's business operations, Burke says, is diagnostic accuracy.


James Burke, MD

"Having accurate interpretations creates the best overall cost structure. If a radiology group or a member of a radiology group is not performing to standards, then the misdiagnosis can mean unnecessary repeat imaging procedures. For patients, it also can mean an unnecessary length of stay."

—James Burke, MD, chief physician executive and senior vice president, Scottsdale Healthcare

Lifting the Veil

Diagnostic accuracy is something often claimed, but less often measured. Lisa Mead, RN, MS, CPHQ, a former radiology-practice administrator, was engaged as director of quality and patient safety by a consortium of 17 radiology practices, across the country, called Strategic Radiology®. The consortium's private practices encompass more than 1,200 radiologists, and they interpret more than 12 million imaging studies per year for more than 120 hospitals. The consortium came together to collaborate in delivering best-practice imaging services.

Mead's charge was to develop a patient-safety organization (PSO), a designation created by the Patient Safety and Quality Improvement Act of 2005 and administered through the Agency for Healthcare Research and Quality. Strategic Radiology will use the recently designated PSO to aggregate data from its members and improve methods for evaluating safety and quality.

Rodney S. Owen, MD, Strategic Radiology's vice chair, says that by using its PSO to identify best-practice indicators, Strategic Radiology can take patient safety and satisfaction to a new level on behalf of its hospital clients. Owen is also co-executive vice president of Southwest Diagnostic Imaging Ltd (Scottsdale, Arizona), a 70-radiologists group (and a Strategic Radiology member), and he is president of one division of the group, Scottsdale Medical Imaging Ltd (SMIL), with 35 radiologists.

"The PSO is totally unprecedented," Owen says. "When we share best practices—and that's what the consortium does—then those standards will be available to all of the hospitals we serve. We're saying to our hospitals, 'We're making ourselves even better.'"

Diagnostic accuracy is often associated with subspecialty interpretation, and ordering physicians at Scottsdale Healthcare's three medical centers often demand subspecialty interpretations, Burke says. SMIL provides those physicians with the subspecialized interpretations that they demand on a 24/7 basis. Many members of Strategic Radiology use internal subspecialized after-hours physicians with subspecialty expertise in neuroradiology, pediatrics, and body imaging, allowing Strategic Radiology's members to provide their local hospitals with genuine around-the-clock subspecialty care.

An Eye on the Regulatory Requirements

While there are regulatory quality mandates with which radiology providers must comply, a much broader arena of quality measurement is voluntary—but important, Owen says. Among the components involved are measures associated with government programs that could negatively affect hospital reimbursement.

One example is the Physician Quality Reporting System (PQRS). If radiology practices don't submit PQRS data to CMS, they (or their hospitals) could lose hundreds of thousands of dollars in income when noncompliance penalties begin in 2015, Owen says.

Strategic Radiology's practices comply with government reporting requirements, but the consortium's mission is to go beyond what is required. "We are watching Hospital Compare ratings, and we look at all of the efficiency measures," Mead notes, "but we really wanted to expand that focus by transitioning from process to outcomes."

Mead acknowledges the importance of process measures, such as the commonly tracked turnaround time, but outcomes measurement (health care's holy grail) largely has eluded radiology due to the gap between the diagnostic procedure and the end of the episode of care. Now, Strategic Radiology is training its sites to compare exam interpretations with reference points from pathology or surgery.

"An example is comparing a knee-MRI report with an arthroscopic surgery report or a biopsy report," Mead explains. "Some of us (across the radiology community) do that, but I think we are raising the bar by looking at this across multiple practices."

Mead conjectures that the consortium has access to the largest aggregation of data in the radiology community, drawing on 17 different geographic locations. "We have the opportunity to look across a bigger dataset," she says. "With big data, we have a better opportunity to identify areas for improvement."

Internal and External Benchmarks

If diagnostic accuracy demarcates the financial bottom line for hospitals, when it comes to radiology—and subspecialty radiology is a key indicator—then peer review is the primary benchmark for measuring that accuracy. The problem with peer review (overreading), a process through which radiologists rate the degree to which they agree with the interpretation of a prior study by a different radiologist, is the bias that comes into play when one radiologist rates the work of another radiologist from the same practice.

James C. Hunter, MD, is senior vice president and CMO of the Carolinas HealthCare System's Metro Group, a network of 11 hospitals that includes Carolinas Medical Center (Charlotte, North Carolina). Charlotte Radiology, a Strategic Radiology member practice of 85 radiologists, interprets for all of the hospitals in the Metro Group.

"One thing Charlotte Radiology has that's very important to me," Hunter says, "is a very robust system of blinded overreading." Hunter adds that it's important that Charlotte Radiology, as a Strategic Radiology member, has access to subspecialist overreading from outside the local radiology group. "For quality assurance," he says, "that's important. Internal benchmarking and external benchmarking are the hallmarks of a good peer-review program."

External benchmarking acts as a control on the local group's internal peer review, he says. Charlotte Radiology shares the whole peer-review process with the Carolinas HealthCare System Metro Group in a transparent way. Individual radiologists are rated according to how critical their mistakes are. They aren't punished so much as re-educated, Hunter says.

"Punishment doesn't improve," he says. "An education plan: That's what we're looking for; that improves the physician—and thereby, the care of our patients."

Peer review is just one of the ways that Strategic Radiology benefits its member groups and the patients they serve, according to Jonathan D. Clemente, MD, vice chief of the radiology department at Carolinas Medical Center and director of quality for Charlotte Radiology. "The main advantage to the patient of having Strategic Radiology is to have the broad, shared clinical baseline—and the best practices shared across a large number of radiologists," he says. "That builds confidence, so in effect, it raises the standard of care for all patients."

Part of the Team

Another expectation of Scottsdale Healthcare is that radiologists will perform as part of the caregiving team. "We expect them to participate in quality initiatives and to deal with patient complaints in their areas," Burke says. "We expect them to help with overall care (with other stakeholders) in the hospital setting."

William Keyes, MD, is Strategic Radiology's medical director of quality and patient safety and is a radiologist at Integra Imaging (Spokane, Washington), a 97-radiologist practice that is also an Strategic Radiology member. He says that one way that radiology practices can provide enterprise support is through better critical-results communication. In developing critical-results-reporting protocols, radiologists can help close a quality gap.

"The communication of critical results is required by the Joint Commission, but there are no standards on results needing call-backs," Keyes says. "We are trying, at Strategic Radiology, to come up with an agreeable number of critical results that need to be communicated."

Protocols for reporting critical results currently depend on the policy of the hospital where the exam is conducted. Clemente explains, "In our own system, we had five hospitals with six different policies."

To track compliance with those protocols, the clerical staff at Charlotte Radiology now performs manual audits (using exam keywords) to monitor whether critical results are properly reported at the hospitals that the group serves; this is a cumbersome process, at best. Strategic Radiology is developing an electronic process for its member practices—and the hospitals they serve—to use in tracking compliance, Clemente adds.

"One of the challenges is that if you have a long list of findings, it becomes labor intensive to monitor compliance," he says. "I have been surveying emergency-department physicians on what they think requires that phone call."
Strategic Radiology wants to be part of a broader effort to develop national standards for reporting critical results, Clemente adds. "Critical-results reporting does need national standards," he says.

From Volume to Value

Ensuring that imaging studies are of high quality is important to a hospital's overall care level, but a key component of value is eliminating unnecessary care. To this end, Strategic Radiology is working with hospital clients to reduce unnecessary imaging. One way to do this is through the installation of universal electronic decision-support systems for ordering physicians throughout the Strategic Radiology network, Keyes says. This remains a work in progress—but a vital one, he adds.

"Electronic decision support has not yet gained a foothold, to a significant degree," Keyes says, "from the standpoint of payors—and maybe even the federal government—requiring it." Strategic Radiology currently is evaluating the decision-support systems offered by vendors to assess which one to recommend to its members.

"Strategic Radiology is working with the vendors to create a system that is more easily deployed and that is accepted by radiology," he says. "It has to be a product that does not inundate the radiologist with unnecessary interference, but that does facilitate appropriate imaging utilization by the referrer, in either inpatient or outpatient settings."

Keyes continues, "In conventional practices, one of the best ways that a referrer can understand imaging utilization is by making a phone call to a radiologist. Electronic decision support makes that a whole lot more efficient."

Nonetheless, without high-quality radiology interpretations, everything from lengths of stay to readmissions can be negatively affected. "We have an impact on every service line and all patient types," Mead says. "A radiology practice that strives for excellence increases the value of the health-care services provided by the hospital: If you are focused on quality, decreased cost follows. This has been proven across every industry that has implemented quality-assessment/-improvement programs. It's just a good business strategy."

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