

Case Study: Raising Standards



A health-care improvement organization designs a decision-support system to circumvent the prior-notification process, with promising results.

By Chris Hobson

Five years ago, the state of Minnesota faced a stark reality: the imaging utilization rates in the state were rising 8 percent annually without a commensurate increase in the quality of patient outcomes. As a result, many state insurance companies began using radiology benefit managers (RBMs) to help insure that only appropriate images were ordered. Providers were opposed to prior notification, however, because it is often expensive to implement and can lead to clinical inefficiencies, such as delays in patient testing. Instead, the physicians sought a more effective route to imaging utilization management.

Thinking Outside the Box

To develop a more patient-centered and cost-effective alternative to the Radiology Benefit Management (RBM) process, medical groups, radiologists, and insurance companies within Minnesota approached the Institute for Clinical Systems Improvement (ICSI) in Bloomington, Minn., a nonprofit health-care quality-improvement organization that serves more than 50 medical groups and hospitals. Since the organization supports innovations that make health care more affordable, it agreed to take on the challenge of designing a decision-support system that could function in place of RBMs.

“The medical providers did not consider RBMs to be a useful tool,” explains Cally Vinz, vice president of health care improvement and member relations at ICSI. “Many of them had been down that road before and found that instead of saving money, RBMs often shifted costs to the providers without much evidence that the RBMs improved the quality of patient care.” The physicians wanted to formulate a cost-effective solution that incorporated best practices for imaging utilization in a “point-of-order” decision-support system, in which physicians use technology to order images.

ICSI set about the task in earnest. It put together a steering committee composed of providers, insurance companies, radiologists, and representatives from the Minnesota Department of Human Services (DHS) to formulate a cost-effective solution that incorporated best practices for imaging utilization in a “point-of-order” decision support system.

Through a deliberative process, the committee decided that the best way forward would be to set up a one-year pilot program in which five integrated health-care delivery organizations incorporated ACR Appropriateness Criteria® into their electronic health record (EHR) systems so their physicians could order images while with patients. In so doing, the medical groups could avoid the prior-notification process, since using the criteria would be considered an immediate electronic form of prior notification.¹

Full Steam Ahead

With the project’s structure in place, the committee enlisted the participation of 4,500 providers. Although the committee found a ready pool of participants, narrowing down which software solution would best provide the ACR Appropriateness Criteria to users presented a challenge. One of the largest hurdles to overcome involved making the criteria accessible to all types and sizes of medical groups and hospital-based clinics.

The committee settled on a software vendor whose decision-support tool allowed physicians to enter a patient’s indications into either an EHR or a web-based system. The software would then determine if the order was of high or low utility. In other words, the software would tell the doctor whether or not the order constituted an appropriate decision. If the order scored in the low utility range, the system would suggest higher utility options. This information could then be shared with patients, making them informed participants in their own health care.

A Groundswell of Support

During the one-year trial period, the committee conducted an audit of 300 randomly selected charts. Half of the charts constituted exams performed six months before the decision-support system came online, and the other half six months after the system was implemented.

The results are encouraging for radiologists. ICSI estimated that during its first year of operation, the pilot program saved Minnesota’s health-care system \$28 million. As Vinz explains, “This number represents the amount that was saved based on expected utilization versus actual utilization, the latter of which saw no increase in 2007 as a result of the pilot.”

Although the project has ended, many of ICSI’s member medical groups, radiology providers, and insurance companies continue to use this decision-support method for diagnostic imaging. The organization hopes that the data, improved clinic efficiencies, and cost savings produced by this project will encourage CMS to embrace a standard set of appropriateness criteria across the entire country. “That way,” concludes Vinz, “all patients would have the same set of rules about whether or not they need to have imaging done and why.”

¹ICSI white paper. Decision Support for Ordering Appropriate High-Tech Diagnostic Imaging Scans at the Point-of-Order. Available at <http://bit.ly/ICSIWhitePaper>. Accessed Jan. 15, 2012.

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