

Computerized order entry/decision support systems: Effective solution to managing imaging utilization

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Providing physicians with a computerized order entry/decision support system that provides immediate feedback regarding imaging appropriateness at the time of ordering may be an effective solution to managing imaging utilization, according to an article in the December issue of the *Journal of the American College of Radiology* (JACR).

"Imaging exams are increasingly replacing more invasive, and often more costly, diagnostic techniques, and have redefined [medical practice](#) as a safer, less invasive and more accurate means of collecting diagnostic information," said Kathryn Keysor, Senior [Health Policy](#) Administrator for the American College of Radiology. "However, aside from this vast patient centered growth, imaging costs have been driven by the fact that many providers may not know which imaging exam is most appropriate for the patient indication they are observing or even when no scan should be performed at all. This, as well as incomplete patient histories and other factors, can lead to unnecessary and duplicate studies, which in turn drive up costs," said Keysor.

Many strategies have been employed to try to manage or decrease the utilization of imaging. "Strategies that offer the best return in the long run will be quality based and data driven and result in the continuous education of providers and patients," she said.

"A computerized provider order entry/decision support system that provides immediate feedback about appropriateness at the time of ordering is an education-focused method of utilization management. With this system, standardized indications are directed at each modality, symptom, and body part through the use of examination-specific "pick lists". An

"appropriateness" score is presented to the requesting physician, along with scores for other imaging modalities that might be selected for the same indications. For examinations receiving very low scores, various barriers to ordering can be implemented. Physician performance with respect to appropriateness is tracked over time, and compared to his/her peers. Additionally, alerts about duplicative scans can avoid unnecessary patient radiation and other examination risks," said Keysor.

The radiology department at Massachusetts General Hospital uses a computerized order entry system. Their seven-year experience shows a reduction in the quarterly compound growth rate of 2.75 percent for outpatient CT, 1.2 percent for outpatient MRI, and 1.3 percent for outpatient ultrasound.

"This is a time-efficient and cost-effective process that can be used in inpatient, outpatient and emergency care settings. CPOE with decision support has proven to be an effective approach to imaging utilization and should be explored further," she said.

More information: www.jacr.org

Source: American College of Radiology

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