

Large hospital successfully implements CPOE system with clinical decision support for radiology

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In an effort to reduce the inappropriate use of medical imaging and improve quality of care, a large, tertiary-care hospital has successfully implemented a computerized physician order entry (CPOE) system with clinical decision support for radiology, according to a study in the February issue of the *Journal of the American College of Radiology*. Significant increases in meaningful use (for electronically created studies, from 0.4 percent to 61.9 percent; for electronically signed studies, from 0.4 percent to 92.2 percent) and the adoption of CPOE (from 0.5 percent to 94.6 percent) were observed.

The meaningful use of health care IT can improve [patient safety](#), efficiency and the quality of care. Initial studies have showed that with decision support, the percentage of low-utility imaging studies may decrease by as much as 57 percent.

The study was performed in a [health care delivery](#) network with Brigham and Women's Hospital in Boston, MA. After pilot testing and user feedback, a Web-enabled CPOE system with embedded imaging decision support was phased into clinical use between 2000 and 2010 across outpatient, emergency department and in-patient settings.

A total of 4.1 million imaging studies were performed during the study period. The use of electronically created studies was greatest in the [emergency department](#) and in-patient settings. Meaningful use varied

across specialties; surgical subspecialties had the lowest rates of electronically created studies.

"Our study shows that an imaging CPOE system with embedded decision support that is integrated into the health care enterprise IT infrastructure and the relevant [electronic medical record](#) platform and optimized with in the clinicians' workflow can be successfully and broadly accepted clinically," said Ivan K. Ip, MD, MPH, lead author of the study.

"Such an imaging CPOE system, if adopted and meaningfully used, could create an excellent platform for delivering real-time decision support to reduce inappropriate use of imaging, improve quality and reduce waste," said Ip.

More information: www.jacr.org/

Provided by American College of Radiology

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