

PACS improves radiologists' use of clinical decision support systems

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Integration with a picture archiving and communication system (PACS) improves radiologists' use of clinical decision support tools, according to a study in the July issue of the *Journal of the American College of Radiology*.

Decision support systems for radiologists can provide information during [image interpretation](#) that may improve [diagnostic accuracy](#) and increase radiologists' confidence. However, most decision support systems require radiologists to exit the PACS environment, which may deter busy [radiologists](#) from pursuing decision support.

Forty-eight radiology residents were randomly assigned to one of two groups: the control group was provided access to a radiology clinical [decision support tool](#) via standard Web browser access, which required manual login. The experimental group was provided access to the same tool through a one-click launch from within PACS with an automated login. Halfway through the 10-month study period, the groups were switched.

Results showed that the experimental (integrated) group had higher use than the control (nonintegrated) group by a factor of 3.0. When integrated access was removed from the experimental group, their use fell by 52 percent. When integrated access was granted to the control group, their use rose by 20 percent.

"Our results indicate that integrating decision support into the PACS

workflow significantly increased use of the tool compared with the nonintegrated approach. Although both methods of decision support showed steady increases in usage over the first five months of the study, the group with integrated access logged three times the number of sessions as the nonintegrated group, confirming a strong initial association between integration and use," said Matthew B. Morgan, MD, MS, lead author of the study.

"Decision support tools that are embedded into the clinical workflow have the best chance of improving quality of care. The bottom line is, we should always be striving to make it easier for people to do the right thing, and even small steps in this direction can make a big difference," said Morgan.

"Embedding decision support tools into the workflow is an effective way to increase usage. While this may seem intuitive, not enough is done by PACS vendors and radiology IT groups in this regard," he said.

More information: www.jacr.org/

Provided by American College of Radiology

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