

# Evaluating the impact of user interface changes on time spent searching for prior exams

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The upgraded picture archiving and communication system (PACS) improves over the prior system in reduced time spent searching for prior studies and total time spent reading studies, according to a study to be presented at the ARRS 2019 Annual Meeting, set for May 5-10 in Honolulu, HI.

Penn State Health introduced a PACS update designed to allow sorting with a wider range of the dictionary of the type of study available. The previous system sorted studies by modality and body system. The upgraded [search system](#) allowed modality and body part to further narrow the examination type. The newer dictionary also allowed the system to automatically open a user-defined number of prior studies specific to the body part being imaged. The study was conducted to evaluate whether these changes reduced the search time radiologists spent finding prior studies for each examination.

Attending radiologists were video recorded using both systems. 219 studies (204 plain film) using the older PACS were evaluated, and 110 studies (98 plain film) after the system upgrade. The average time radiologists spent searching for a prior study improved from 6.1 seconds to 4.6 seconds, with the median improving from 4 seconds to 2. The average time per study interpretation went from 137 seconds using the old system to 113 on the upgraded system. The maximum time spent searching was reduced by almost half, from 40 to 25 seconds.

The results indicate that the upgraded PACS system saved attending radiologists time searching for prior studies and significantly reduced their total time spent reading studies.

**More information:** [www.arrs.org/am19](http://www.arrs.org/am19)

Provided by American Roentgen Ray Society

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