Shorter E.R. times in hospitals with advanced electronic records

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When you've got an emergency, you don't want to wait. You want to get into the hospital emergency room as quickly as possible, get treated and go home. A new study from the W. P. Carey School of Business at Arizona State University shows if you choose a hospital with the most advanced type of electronic medical records, you are likely to spend 22.4 percent less time in the E.R. than you would at other hospitals.

"The good news is that if you choose a hospital with the best type of fully functional electronic medical records, you will probably have a shorter treatment time and a much shorter overall stay in the emergency room," said assistant professor Michael Furukawa, who authored the study. "However, I also found that if your hospital has just a basic electronic medical records system, efficiency could actually be worse than at emergency rooms with no electronic medical records at all."

Furukawa examined data from the 2006 National Hospital Ambulatory Medical Care Survey. The nationally representative survey includes records from more than 30,000 patient visits to 364 hospitals across the United States. Furukawa looked at three categories: hospital emergency rooms with little or no electronic medical records; those with only basic electronic medical records, which lack more advanced functions like online access to certain test results; and emergency rooms with the best, fully functional type of electronic medical records systems.

He found that hospital emergency rooms with the best electronic medical records had 13.1-percent shorter treatment times, 23.5-percent shorter

stays in the E.R. for patients eventually admitted to the hospital, and 21.3-percent shorter stays in the E.R. for patients who were treated and discharged without being admitted.

Since federal stimulus money is being used for health IT efforts, including electronic medical records, this is important even beyond the obvious benefits for the patients. Electronic medical records are projected to help lower costs, boost efficiency, and improve patient safety and care. However, hospital emergency rooms with only basic electronic medical records did not perform very well in some areas. For example, they had a 47.3-percent longer wait time for patients specifically dealing with urgent or semi-urgent medical issues.

"Surprisingly, basic electronic medical records were associated with longer wait times on average, especially for patients arriving at the E.R. with truly urgent medical needs," Furukawa said. "Therefore, the sophistication of health IT systems is important. Some hospitals may just plan to do the minimum necessary to get federal funding, and that may have unintended, negative consequences."

Furukawa believes efficiency may improve over time as hospital staffers and others become more familiar with the basic systems. He says this could be a learning-curve situation where the benefits vary depending on the number and type of functions used by hospitals. For now, he just wants to be sure people have realistic expectations for electronic medical records.

"Partial electronic medical records are not optimal," he said. "Don't expect to go halfway to achieve the same efficiency and benefits. As the government is announcing its standards for health IT, this should be kept in mind."

Furukawa's new study, "Electronic Medical Records and the Efficiency

of Hospital Emergency Departments" was recently published by the journal *Medical Care Research and Review*. The results can be found at [mcr.sagepub.com/content/early/ … 0372108.full.pdf+htm](mcr.sagepub.com/content/early/) .

Provided by Arizona State University