

PRESS RELEASE

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FSU Study: Patients Fare Better in Hospitals Using Info Technology

By Doug Carlson

TALLAHASSEE, FL -- Patients are more likely to have better health outcomes if they are treated at hospitals using information technology (IT) systems, according to a comprehensive new Florida State University study. The study compared overall IT adoption with patient discharge data at 98 hospitals across Florida, providing the most comprehensive analysis to date of the relationship between information technology use and health outcomes. The study appears in the November/December issue of the Journal of Healthcare Management. "We found that the more information systems adopted at a given hospital, the better that hospital performed on a variety of important patient outcome measures," said Nir Menachemi, lead author of the study and director of the Center on Patient Safety at the FSU College of Medicine. Preventing medical errors and improving patient safety are among the most important potential advantages of adopting IT in health care. Previous studies at select academic medical centers have demonstrated that the use of individual IT applications, such as computerized order entry and clinical decision support systems, are associated with desirable health outcomes. However, academic medical centers are not typical of most U.S. hospitals, and it was not clear if the results of those studies could be generalized to hospitals across the country. The FSU study examined a large sample of hospitals, public and private, rural and urban, and used widely accepted patient safety indicators to measure the effect of IT systems on patient outcomes. The study supported Menachemi's hypothesis that hospitals with more sophisticated IT infrastructures would perform best on a set of patient safety indicators. "Our study is the first to link the use of IT to improved outcomes across a large number of community hospitals," Menachemi said. "The evidence we found is a compelling reason for hospitals to make sure they are utilizing the most up-to-date information systems." Deaths as a result of post-operative blood infections have doubled in the United States over the past 20 years. However, such deaths decreased for patients in hospitals using IT systems in the treatment process, as did deaths from post-operative respiratory failure and other infections. Such conditions can be prevented when clinicians have up-to-date patient information, standardized medical order sets and evidence-based guidelines on best treatment procedures. Menachemi found that hospitals properly using IT networks are best able to ensure that clinicians receive critical information at the point of care to assist physicians in adhering to proven clinical guidelines. The study examined three categories of IT use that affect various aspects of hospital operations: administrative, clinical and strategic. Administrative operations included those IT systems used in billing, payroll and supply chain management. Clinical operations included pharmacy and laboratory, computerized physician order entry and electronic health records. Strategic operations involved systems used for managed care, nurse staffing and executive information.