

Process Makes Perfect

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The enormous potential of health IT to improve quality and safety can only be harnessed through focused process improvement



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An attending physician rolls a cart with a wireless laptop into a patient's room and pulls up the patient's medical history, lab results and other documentation on the screen. With a click of the mouse, he sends a medication order to the pharmacy to be filled.

There's no doubt that computers on wheels, electronic health records (EHRs) and computerized physician order entry (CPOE) are revolutionary technologies that transform the way medicine is being practiced, taught and advanced. But these are merely tools. And the tools are only as good as the processes behind them. True quality care through health IT is achieved by automating processes based on evidence in order to provide better outcomes and safer care. At the same time, automation can eliminate unnecessary steps in order to increase clinicians' productivity and efficiency.

To take advantage of IT's potential to improve care, Trinity Health has redoubled its efforts in process re-design to ensure that technologies supporting care delivery are infused with evidence-based practice standards, making them powerful tools for enabling optimum quality and patient safety.

Examining the Evidence

Since 2000, Trinity Health, a Catholic health system with 45 hospitals across the U.S., has been focused on a systemwide process improvement effort that includes a \$315 million investment in health IT applications including CPOE, EHRs, nursing documentation, paperless charts in the emergency department, adverse drug event alerts and more. Called Genesis, this initiative has enjoyed a high level of success in the adoption, adaptation and implementation of IT, and is unique among community hospital health systems in both its scope and its success.

In just three years, Trinity Health has launched its clinical and revenue cycle system in nine facilities and its supply chain information system in six hospitals. Among the many lessons learned is the understanding that Genesis is neither a project, nor strictly IT-centric. It transforms the way our medical staff and associates do their work.

One obvious change is the way nurses and physicians communicate. Trinity Health physicians are able to access patient information far beyond the hospital walls. Now, when a nurse calls a physician about a patient, the first thing both clinicians do is access the electronic record. This way, they can review the information together, rather than spend time verbally repeating and reviewing everything in a paper environment. On the process side, hospitals are better able to measure true clinical improvement in various activities, such as the ability to administer antibiotics more quickly.

Building on this experience, Trinity Health is shifting its focus to developing the best ways to integrate the latest evidence-based practice treatment standards and medical research with state-of-the-art technology. The organization's central clinical repository contains 4.5 million patient records, and it's getting bigger as more member hospitals adopt clinical information systems. Mining this database will enable our hospitals to deliver evidenced-based medicine to the point of care and ensure improvements in overall clinical quality.

To accomplish this, multi-disciplinary teams of physicians, nurses, administrators and IT executives have been created to develop the best ways clinicians can integrate the latest standards and medical research with the system's technology. For example, one team is studying every aspect of care—from admission to discharge—for patients with acute coronary syndrome in order to improve clinical outcomes and patient satisfaction. Another team was formed to examine care processes for heart failure patients, and teams are forming around diabetes, community-acquired pneumonia and surgical infection prophylaxis.

These care transformation teams' primary goals are to reduce variation in clinical processes, provide decision support and improve communication through automation. Once the improved care processes are defined, the steps will be integrated into the electronic health record system, and success will be measured by the ability to improve core clinical indicators, productivity measures, patient satisfaction, financial performance and community benefit.

During the next three years, Trinity Health expects to examine care processes for approximately 40 disease conditions.

Seizing Health IT's Potential

The time is ripe for process redesign. According to a study published in the *New England Journal of Medicine*, U.S. patients get appropriate medical care only 55 percent of the time. Greater use of EHRs could improve care by tracking patients' medical history and providing electronic reminders about needed tests and treatments.

At Trinity Health, the member hospital teams and the clinical operations improvement and information services departments are consolidating lessons learned, studying best practices, and above all, communicating. By connecting the dots between care practices and outcomes, they enable the organization to extract full value from its technology investments while positioning it to take advantage of future quality improvement and cost-saving opportunities.

There is increasing pressure to operate efficiently in health care. Costs are spiraling out of control, due in part to huge amounts of redundancy and waste. Medical errors arise because of process failures, ineffective communication and lack of information. It is time to make the best use of new technology in every phase of a patient's experience to drive out efficiencies, eliminate errors and enhance communication. Capturing the additional anticipated benefits of an electronic health record is the next crucial step in the journey to make hospital care better and safer for everyone.

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