

Can Software Save Lives?

Hospitals and doctors should have fully implemented systems and processes in place to share critical data.

By Linda Donovan

➤ INNOVATION IN HEALTH care doesn't always come in the form of a powerful new drug or even through improvements in the way physicians provide care. New developments in information technology (IT) can drive innovative projects that help physicians save lives.

IT and business management have become tightly intertwined in hospitals, as in other industries. Because of this important relationship, IT execu-

tives in the medical industry can make significant contributions by helping hospital managers implement automated systems to monitor patient care. But first, IT executives and their teams need a vision of how medical information is communicated, controlled and integrated. Their IT infrastructure must support that vision. Failure to share critical information with the systems and people who need access to it may result in unnecessary deaths. The clock is ticking.

I'll use an example to illustrate this point. I'm aware of a patient who underwent a medical test in a hospital emergency room more than a year before he was diagnosed with terminal cancer. The initial report gave him a relatively clean bill of health. However, a second report indicated a spot on his liver and recommended an ultrasound for further evaluation.

The patient was discharged from the hospital based on information from his first report, which did not highlight the problem or the recommended test. Unfortunately, the second report was filed away without ever reaching the patient or his health care providers.

The patient didn't have the information he needed, and went about the remainder of his life wondering why he continued to have medical problems when there was "nothing seriously wrong" with him. He was unaware of the existence of the second report until after he was diagnosed with cancer more than a year later, and asked to see his file to compare it against his latest CT scan. By then, the cancer had already spread, and it was too late to

save his life.

This case indicates the need for automation in reporting medical test results. Apparently, this patient's health care facility did not have automated workflow notifications or automated escalation processes in place. There were no automatic alerts to the patient or his physicians, advising them of the recommendation for further screening. Failure to have those processes in place — and enforced — prevented the patient and his physicians from acting upon critical information in a timely manner.

IT organizations, especially those in the health care industry, cannot afford to underestimate the vital, strategic role integrated systems and communications play in their success. With the strategic use of technology, it's possible to improve and transform business processes and react quickly to real-time data changes. Failure to take this approach can cause IT organizations to operate in a vacuum — disconnected from their businesses' primary objectives and processes, and lacking consistent goals, procedures, controls and best-practice guidelines.

The need for automation

Emergency rooms are very busy places. It is increasingly difficult for ER personnel to rely on manual data-sharing processes in this environment, especially as the number of patients continues to increase and more demands are put on the hospital staff.

The example I cited earlier might have ended differently had an integrated and automated process been in place. With integrated workflows, notifications and escalations, a fully enabled service automation process could have engaged the appropriate people (doctors, administrators, etc.) with the data contained in the second report. Policy-driven attention and



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actions could have alerted the patient and his health care team of the recommendations for further testing. The physicians might have been able to diagnose the patient's illness in the earliest stages. The patient could have had the information available to take a more active role in seeking the best treatment for his medical condition as soon as possible.

At the very least, he could have had a fighting chance.

This patient's example is indicative of the types of problems that can plague hospitals and other medical facilities that do not have the processes, systems and infrastructure in place to prevent a similar gap in critical communications. This example demonstrates an important lesson: By leveraging IT and business automation, medical teams can have real-time visibility into any critical information and changes related to a patient's health.

Hospitals and their staffs are in the

business of saving lives, and their systems should enable that effort. Staff members, departmental teams and the third parties that work with them (i.e., outside radiology labs, pharmacies, doctors and others) need to collaborate and communicate. And although each of those groups may provide specialty functions, they need to share patient data with each other within HIPAA guidelines.

Without alignment, health care specialists do their jobs in a vacuum and life-saving information can fall through the cracks. With the right management vision, processes and technologies in place, additional deaths may be prevented. This vision is for managing IT based on business priorities, an approach known as Business Service Management.

Ideally, hospitals and doctors should have fully implemented systems and processes in place to share critical data using this holistic approach. Unfortu-

nately, that is not always the case. It's also important for patients to be actively involved in securing their own data. They should ask whether the systems their health care providers use are working together effectively so that providers have access to the right information when they need it. Patients should also follow up with their doctors and hospitals after a critical medical test has been taken, and ask if any additional information or reports might be available. They should secure copies of their reports to discuss and review with their health care providers. These actions are vital and could make the difference between life and death. **HIE**

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