

Common Vision

A one-button talk system and multi-purpose bedside carts have changed the way nurses care for patients at this St. Louis-area hospital.

What does a hospital look like when management and IT work hand in hand on process improvement? It probably looks a lot like Progress West HealthCare Center.

More specifically, nurses can easily communicate with patients, other nurses, and hospitalists; clinicians spend more time at the bedside; pharmacists are an integral part of the patient care team; and unit secretaries are unnecessary.

“We have completely distributed nursing and pharmacy services,” said Ginny Clarke, director of workflow redesign at Progress West. “Other hospitals say they do charting in the room or that the pharmacists are at the bedside, but if you came here, you would see it in action every day. Nurses are not outside the room at a computer; nurses work in the room.”

Progress West in O’Fallon, Mo. is one of 13 hospitals in the BJC HealthCare system. As a beta site for new technology, its team is focused on delivering patient-centered healthcare. It opened in February of 2007 with 72 beds designed to serve Southern St. Charles County.

Losing the tether

Two IT systems form the basis of improved patient care at Progress West: mobile computer carts in each room and portable communication devices. All charting for patients is done in the room—there is no central nursing station. Computer carts contain a PC connected to the hospital’s main IT system, a biometric sign-on device, diagnostic tools, medication for that room’s patient (in a locked drawer), and a barcode reader.

The cart can be wheeled next to the bedside while the nurse takes and records vital signs, moved away from the bed for charting without disturbing a resting patient, and wheeled to the sitting area so a nurse can review things like medication reconciliation with the family.

“The workstations allow our clinical staff to be at the bedside more often and for greater lengths of time,” said Chris Samuelson, an RN and manager of clinical information.



That includes pharmacists, who Samuelson said are on the floor about 80% of their shift, interacting with patients on reconciliation and new medications, answering nurse’ questions, and working with physicians.

The system is designed so pharmacists can enter orders from anywhere in the hospital, so they are not tethered to the pharmacy, said Clarke. “Typically, when a physician writes an order, the order gets sent to the pharmacy, and by the time the pharmacist sees it, the physician is on another floor or has left the hospital. This way, the pharmacists and the physicians can work together.”

A separate touch-screen device is provided for each patient to use at the bedside to research medical conditions, give feedback on materials they've read, order meals, and learn the names of their care team each day.

The software was designed inhouse, said Clarke, to give the hospital complete control over the content. "This is not for entertainment like some of the systems you can buy," she said. "We hope to expand it so patients can see their schedule for the day."



Call me

Portable communication devices from Vocera are the second technology enabling nurse efficiency and better patient care. Clarke said there was much discussion over the type of communication system to install, and although some were concerned about a potential lack of privacy or frequent interruptions with the Vocera system, that has not been the case.

Instead, the devices have completely changed the culture. "It's been transformational for the staff here," said Samuelson. "It's an on-the-spot, at-the-moment, take-care-of-your-needs system. You're not putting something off or writing it down and forgetting about it. You take care of something on the spot, and then it's done."

When a patient presses his/her nurse call button, rather than going to a central station, the call goes directly to the nurse assigned to that patient that shift. Nurses answer the call by pressing a button once and then speaking into the device, hands free. If the nurse has silenced his/her device for a quiet period during a family meeting or dressing change, the call is automatically routed to the covering nurse.

Nurses use the system to speak to other nurses, pharmacists, and hospitalists to find out their location or ask a question. They can also request help from an individual or group. "If I'm in a room and need a lab worker or a respiratory specialist or another nurse, and I need them right now, I push a button, speak the person's name, and boom—no remembering a phone number, dialing the number, or leaving the room," said Samuelson. "I can also activate a rapid response team with the push of a button."

The Vocera system is integrated with the patient monitoring systems, generating a tone or click when vital signs go above an acceptable level, prompting the nurse to investigate or send someone. A text message on the device tells the nurse

which room the alert pertains to and what values have been exceeded. For more information, the nurse can go to the nearest computer and pull up the patient's record.

"These kinds of technologies allow us to be in one room and still monitor what's going on with a patient in another room," said Samuelson. "We communicate hands-free, which is important—it's less intrusive."

Although attending physicians do not wear a Vocera device while at Progress West, their mobile and/or office numbers can be programmed into the system, so nurses can use their device to call them. Hospitalists and ED physicians do wear the devices and can use the devices to call nurses and other staffers. "For example, they can say, 'Call nurse for 317.' They don't have to know the name of the nurse taking care of that patient," said Clarke.

Both Samuelson and Clarke are understandably enthusiastic about the way technology has improved their working lives and their ability to care for patients.

"I think the most successful thing we did here was plan the hospital with IT as a partner," Samuelson said. "IT was involved in everything from helping establish the culture to interviewing the managers because we had a common vision. IT and the business were one and the same." +

—Jill Rose

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