



Hospital Uses Technology to Improve Emergency Department Efficiencies and Increase Revenue

AT A GLANCE

VHA Shareholder Rush-Presbyterian-St. Luke's Medical Center is an 824-bed urban hospital located in Chicago that frequently is ranked among the best hospitals in the nation by U.S. News & World Report. The hospital needed to improve the operating efficiencies of its 34-bed emergency department, which was operating at a deficit and where patients were waiting unacceptable lengths of time before being seen by a doctor. The emergency department's medical directors determined that an information system specifically designed to meet the needs of emergency departments would help overcome these challenges.

In a year, Rush captured an additional \$3 million in charges.

Within six months of implementing a new information system in its emergency department, Rush-Presbyterian decreased patient wait time by an hour and captured \$1.5 million in additional charges — paying for the system. The hospital continued to see an increase in emergency department revenue and, by the end of one year, captured \$3 million in charges that would otherwise have gone unrecorded.

Easy Implementation

When Dino Rumoro, M.D. and Julio Silva, M.D. came to Rush-Presbyterian in June 2001 to head the emergency department, they evaluated a number of information systems for the emergency department, eventually selecting VHA supplier ibex Healthdata Systems to transform its operations. An important factor in the hospital's selection of ibex's PulseCheck® emergency department information system was that an emergency department physician designed it. The system addresses the specific needs of emergency departments, where medical staff members are often treating multiple patients, dealing with life-and-death situations. As a result, clinicians may have difficulty writing complete medical reports and capturing all of the appropriate charges.

An ED physician created the ibex Pulsecheck system. It worked right out of the box.

“We chose PulseCheck because it was developed by someone who has worked in an emergency department and understands our needs,” Rumoro said. “As a result, the ibex system worked right out of the box.”

The system went live at 7 a.m. on July 1, 2001, and has not gone down since. This is critical, since emergency departments are busy around the clock and need to have a reliable information system. To meet this need for reliable service, ibex offers a 24/7 hotline offering technical support.

Converting Losses to Profits

Prior to implementing PulseCheck, Rush-Presbyterian's emergency department experienced annual losses of \$500,000 to \$1 million. Many emergency departments face such losses because incomplete documentation can cause inaccurate billing. PulseCheck makes it easier for clinicians to document a patient's level of care, reducing denials for reimbursement and shortening billing cycles. They can easily, and legibly, update patient records using one of the many laptop or desktop PCs located throughout the emergency department. The system is HIPAA-compliant and provides additional security by offering a thumbprint identity log-in that automatically logs out when medical personnel leave the immediate area.

Improved Patient Care

PulseCheck also helped the hospital's emergency department reduce its wait time for nearly 40,000 patients a year. The system's tracking feature shows which beds are available, and helps identify which support departments are most likely to have patient delays. In addition, medical staff can save time because the Web-based system allows them to access patient records immediately.

"We can pinpoint where patients are spending their time and improve our processes and patient throughput," Rumoro said. "Our staff has the option of transferring patients to various areas of the emergency department based on the patient's level of acuity, therefore averting long delays and maximizing staff productivity. In fact, wait time has gone down 40 minutes for patients with orthopedic injuries since we started using PulseCheck."

Rush-Presbyterian's emergency department was put to the test when Chicago was chosen as a site for the Department of Justice's national bioterrorism drill.

"Generally in crisis situations we rely on paper and pen, because that's what we're familiar with," Rumoro said. "This time, our staff continued to use PulseCheck, and we handled the situation better than ever before."

Whether or not in crisis, busy emergency staff and their patients benefit from PulseCheck's templates that offer guidance and help prevent improper discharge — one of the biggest problems for emergency departments. Abnormal vital signs are highlighted with a yellow or red light, depending on severity, and medical staff must override the system to discharge patients. In addition, it uses software that recommends potential diagnoses or symptoms that should be evaluated.

Not only does PulseCheck help prevent improper discharge, it also limits liability through improved documentation. Every medical action is documented, providing a detailed snapshot of a patient's visit, which can be invaluable during litigation.

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Facilitating Growth

Rush-Presbyterian currently is exploring how PulseCheck can further improve operations. Short-term goals for the hospital include integrating information from specialty departments, including laboratory reports and radiology results, in addition to instantaneously deploying charges as they are documented.

In the long-term, the hospital is considering using ibex technology to aid biosurveillance efforts, tracking community health issues and helping establish the hospital as a bioterror center. According to Rumoro, ibex technology will play an instrumental role in the emergency department's planned expansion.

