

Health Management

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BASES COVERED

*Health plan uses IT to turn
opportunity into profitability*



Network Integration

**Credentialing for
Physician Offices**

**Emergency Department
Information Systems**

1 Year, \$3 Million, 0 Problems

Chicago hospital achieves a 6-month ROI with new emergency department information system, and goes from impairing profitability to improving it.

It's no longer enough for a healthcare organization to expect, or even to derive, only clinical benefits from a software system. The software system that works clinically for patients and doctors must also work financially for hospital and healthcare network administrators—and in fairly short order, too.

PROBLEM

Rush University Medical Center, a Chicago hospital of nearly 700 beds, has been cited nationally in *U.S. News and World Report* as one of the best hospitals in the U.S. While the institutional side of the healthcare organization was fiscally healthy, our emergency department (ED) was hemorrhaging cash. We estimate that it might have lost \$500,000 to \$1 million per year—and “estimate” is a key word.

Our clinicians and administrators knew that the ED had problems with door-to-doctor times, wait times within the ED, throughput and comprehensive documentation that captured and coded services for billing. But without an automated system to accurately measure the problems, everyone guessed at their extent—and damage.

Our emergency department is staffed with 19 attending physicians and 60 nurses, and handles about 42,000 patients annually. Approximately 12 resident physicians representing various medical specialties rotate through the ED each month. Until 2001, nurses and physicians documented with paper, using homegrown chart templates that might generate a single-page documentation of a patient encounter.

We have reduced door-to-doctor times to about 25 or 30 minutes, which is excellent for an urban hospital.

ED staff tracked patients with a large grease board that accommodated little more information than the patient's name and the name of the clinician treating him. We might know which room the patient was in with the grease board, but not other staff available to treat him and not the status of clinical orders related to

his care. Financially, physicians' collections needed work; the ED had operated at a deficit for many years.

We might have lacked clear metrics about our problems, but our objectives were clear. We wanted to capture more data to clinically improve treatment. We wanted to reduce waiting room times, use collected data for process improvement and quality assurance, and better capture interactions between patients and physicians. We knew that the automated capture and reporting of data would favorably influence financials.

SOLUTION

The medical directors before us at Rush also knew that the organization needed an automated emergency department information system (EDIS),

and they had identified Ibx PulseCheck from Wakefield, Mass.-based Picis as the system they wanted. Unfortunately, the funds weren't available.

We came to Rush in 2000 to direct and improve its clinical ED performance, and not acquiring an EDIS would have been a deal-breaker for us. We, too, selected the Ibx PulseCheck system, in part because it was designed by an ED physician. With our advent, the funds were forthcoming. We went live with the system

on July 1, 2001, and we have experienced no downtime since.

Our implementation was relatively painless. The first two weeks were challenging because we had more than 80 clinicians using the system, all with varying degrees of computer fluency. We had set up in-service training sessions for doctors and nurses, but these were only two- or three-hour sessions, and no one asked for more. Beyond those training sessions and the first two weeks, ED staff had no trouble adapting to the system because it is extremely intuitive.

RESULTS

Within six months of installing the EDIS, we captured \$1.5 million in additional institutional charges—and this alone was enough to pay for the system. The additional charges emanated from more comprehensive documentation of patient encounters, and also from our ability to

SOURCES

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ibx
PulseCheck

use the system's reports to make internal process improvements. By the end of the first year, we measured \$3 million in additional charges that might have otherwise gone unrecorded—and turned the ED around from financial loss to financial gain.

The EDIS system has played a pivotal role in helping us to address other process-related issues. One of the biggest was length of stay (LOS), and we found we could use the system to influence LOS from triage forward.

Today, our overall LOS in the emergency department is about four hours, and that includes treating both the relatively routine cases as well as the most severe—and it's an excellent LOS for an urban hospital. Our "fast track" or express area, for patients who don't require extensive treatment, is about 1.5 hours. Overall, we have shaved one hour off the LOS of our sickest patients, and one hour and 20 minutes from our moderate-need patients' LOS. Finally, we have re-

duced door-to-doctor times to about 25 or 30 minutes, which is excellent for an urban hospital.

From the beginning, we have conducted monthly ED meetings including physicians, nurses, social services and all those involved in the ED. Ibex PulseCheck allows us to not only capture and view patient clinical data in real time, but also to use that data for monthly and annual reporting so we can measure and improve our processes. For example, we identified a bottleneck in radiology. We spent too much time getting patients to radiology, too much time getting films read and too much time incorporating those clinical results into the ED treatment process—and with computerized data as support, we were able to alter our processes and improve our performance.

A simple measure of our success with the EDIS system is that everyone in the ED uses it. We had heard about incremental installations, but decided

that wasn't for us. Our position was, "This is our ED record. There's no alternative. Use it." Everyone did. We had no holdouts or slow adopters.

In the beginning, the system was regarded as a novelty; everyone was intrigued with the new set of tools. As we began to build interfaces to Rush University's other systems (Cerner for labs, Siemens for HIS) and they could see the ED medical record being populated with data and results from interfaced systems—that's when support for it took off. Today, we have all data for ED patients contained in Ibex PulseCheck—lab orders and results, nursing orders, X-ray orders and physician documentation. We have achieved the clinical and process improvement results we sought, and in short order, have added to the bottom line as well.

**For more information about Ibex
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