

Scotland Health Care System ED Visits Climb 12% Yet Patient Satisfaction Soars



Scotland Health Care System is a community owned, not-for-profit healthcare system located in Laurinburg, North Carolina. The 104-bed hospital employs over 1,000 personnel and sees more than 33,000 annual ED patients a year. The system includes 67 physicians representing several medical specialties. Scotland Health Care is Scotland County's largest, non-governmental private employer.

Facility renovation prompts search for automated system

In August of 2006 Scotland Health completely renovated its ED facility, increased its bed capacity by a third to 21 beds and tripled the square footage of the physical plant. At that time patient information was documented on paper and handed back and forth between caregivers. ED patient length of stay (LOS) averaged 250 minutes or more, and patients who left without being seen (LWBS) represented 10% of visits.

"It was apparent that it was going to be very difficult if we continued to use this process when we moved into the huge new area," says Ryan MacKey, Scotland Health's Director of Emergency and Critical Care Services. "Dealing with one record that everyone is trying to get their hands on would have been unacceptable, as opposed to using an electronic documentation system that everyone could access anywhere, anytime."

Quick Profile

Scotland Health Care System

Institution profile: Single facility regional community hospital with 104-beds, 33,000 annual emergency department (ED) visits and 450 ED PulseCheck users.

Key business/clinical drivers:

Move to a renovated ED with triple the square footage and a third more beds, manage a 12-14% increase in ED visits, decrease average patient LOS and improve patient satisfaction.

Picis solution:

ED PulseCheck™
InSight ED™ decision support tools

Interoperability:

Picis interoperates with the Meditech hospital information system

Results:

- Reduced ED patient LOS by 25%
- Reduced left without being seen from 10% to 3.5%
- Absorbed 12% increase in ED patient visits (96 patients a day)
- Improved ED processes and clinical documentation
- Identified accurate staffing and census patterns
- Increased patient satisfaction scores from 85% to 91%



▶ As a result, Scotland Health went shopping for an automated emergency department information system (EDIS). Goals for the automated system included:

- Easy access to patient records
- Improved departmental patient throughput and flow
- Continued quality of patient care
- Improved consistency/accuracy of clinical documentation
- Streamlined workflow and performance of the physician and nursing staff

Scotland Health considered eight systems, and chose Picis ED PulseCheck because it met all the criteria necessary to achieve the hospital's goals. The hospital had a successful track record of using Picis perioperative solutions, which were already installed and functional within the surgical services department at the hospital. Rather than a phased implementation, the organization decided to "go live" with the entire ED PulseCheck system at once using the "big bang" approach.

Streamlined processes

Within a month impressive results were being realized at Scotland Health, most notably in improved patient throughput and flow, and staffing and census patterns.

"Having an electronic record streamlines the patient care process and expedites everything," says MacKey. "ED PulseCheck gives everyone in the department instant visibility into who is coming in the door, who is in the waiting room and who is physically in the department, rather than having to visually check the different areas of the department or look at a chart rack to determine how many charts are active. And the system notifies us when we are getting close to capacity. ED PulseCheck also provides other departments access to the electronic documentation system — primarily radiology and respiratory. All of this has really helped expedite throughput in the department."

MacKey now does a more complete chart review because he is able to look at 100% of the records instead of just a sampling with paper records, which may or may not be an accurate representation of the activity in the department. He is able to look at trends, and see from both a productivity and quality standpoint where some of the bottlenecks are happening, when the busiest times occur, where activity drops off

and what types of activities occur and how often. With this increased access to information, he can better manage the department to meet shifting demands.

Promoting increased quality of patient care

The number of patients coming into the ED drives how much staffing is needed and when. Based on information provided by ED PulseCheck, Scotland Health determined that their peak hours are consistently from 11:00 AM to 11:00 PM every day. As a direct result, an additional nurse was added for this 12-hour period in the seven-bed minor care area to handle the overload. Now fewer ambulance diversions are made and the ED has increased capacity to accept patients.

Replacing paper patient records with electronic records was initially met with quite a bit of uncertainty by Scotland Health's ED clinicians, but that soon changed. "I would venture to say that within six months they were pretty comfortable with the new system, and within a year they probably were at the point where they wouldn't know what to do if they didn't have it," MacKey reports. "It is very clear to me that ED PulseCheck was instrumental in expediting what has been and will continue to be a successful endeavor."

Patient satisfaction scores and operational efficiencies have improved dramatically following the automation of clinical documentation and processes with ED PulseCheck.

- LOS has been reduced 25% from **250 minutes to 190 minutes**
- LWBS dropped from a **high of 10% to 3.5%**
- The ED absorbed **12% more visits** to 96 patients a day
- Patient satisfaction scores jumped from **85% to 91%**

Future Plans

Scotland Health is looking to take further advantage of ED PulseCheck's functionality. While the hospital is using InSight ED™ basic departmental rules at this time, MacKey is eager to expand its use of this decision support tool to include communication with other hospital departments, and help clinicians and administrators know when order results have not been returned within a reasonable time, and if a patient has any open orders. Using InSight ED will help Scotland Health's ED provide better department and inter-department management and proactive patient care. ■

"It is very clear to me that ED PulseCheck was instrumental in expediting what has been and will continue to be a successful endeavor."

For more information, visit www.picis.com or call 781 557 3000.