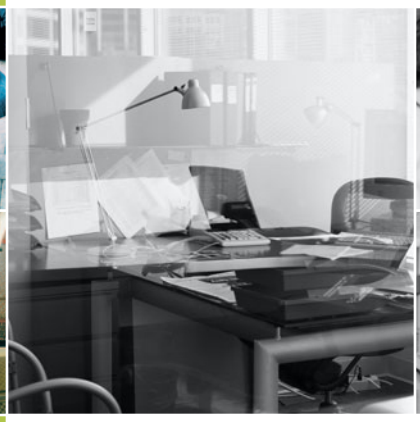
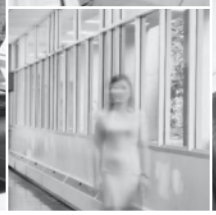
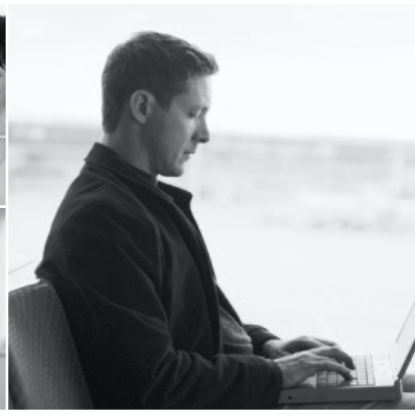
CASE STUDY

NORMAN REGIONAL HEALTH SYSTEM
BOOSTING PATIENT SAFETY WITH ACCESS SOLUTIONS



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Quick Facts

Name: Norman Regional Health System

Location: Norman, Oklahoma; Moore, Oklahoma

Focus: Full service hospital

Integration: MEDITECH HIS and Scan Archive

Access Products Used: Intelligent Forms Suite, e-Forms Repository, Patient Label System, E-Signature, Universal Document Portal, Image Portal

Departments using Access solutions: Patient registration, clinical areas, HIM, patient billing, heart stations

As the leading healthcare organization in south central Oklahoma, Norman Regional Health System (NRHS) serves patient needs, promotes wellness and improves the health status of the region. The system's acute-care hospital on the Porter Avenue Campus is licensed for 337 beds and offers a full range of services. Moore Medical Center, licensed for 45 beds, provides general medical and surgical needs, physical therapy, obstetrical services, 24-hour emergency services and close-to-home diagnostic imaging to the Moore community. The HealthPlex Specialty Hospital is located at Interstate 35 and Tecumseh Road. It focuses on Women's and Children's Services, Cardiovascular, and Orhto/Spine services and includes the HealthPlex Professional Building. This 150 bed specialty hospital opened in October 2009.

Norman Regional provides outpatient diagnostic centers, medical transport services, physician services, centers of excellence, durable medical equipment supplies, a primary care network, community wellness service and employer health services. The system employs more than 3,000 people and partners with 300 active-staff physicians. Norman Regional has won numerous state and national awards for its clinical practices and community outreach, and was also named one of the "100 Best Places to Work in Healthcare" by Modern Healthcare magazine. NRHS also was recognized by Health Care's Most Wired as one of the "Most Improved" for 2009.

At Norman Regional, the IS team has made great strides towards achieving a true electronic health record (EHR), resulting in numerous efficiencies. However, the organization still relied on paper forms. Manually managing these delayed processes such as admissions, information sharing, scanning in HIM, as well as increasing storage and supply costs.

"Healthcare is a paper-intensive industry, and we wanted to be as paperless as possible with all aspects of our medical records," says John Meharg, HIT Director at Norman Regional.

The IS team evaluated multiple forms automation products, and eventually chose the Intelligent Forms Suite (IFS) from Access – part of Access Enterprise Forms Management

The Business Problems

- Use of paper forms delays patient registration
- Need to find a forms system that can contribute to patient safety initiative
- Getting EKG reports into SCA is a time-consuming process and errors are possible
- Forms information is not associated with HIS records
- Staff members spend hours manually processing forms
- Downtime processing

The Solutions

- Replacing paper forms with electronic version speeds admissions
- Access's PLS barcoding solution ensures accurate patient identification every time
- EKG reports automatically interfaced into SCA, eliminating tasks and possibility of errors
- Interoperability with MEDITECH HIS and Scan Archive provides clinical and administrative staff with instant access to patient demographics
- Automated forms processing gives staff more time to spend with patients
- Continuous forms access during HIS downtime

(EFM) – which enables hospitals to manage forms electronically and to efficiently distribute patient information quickly and securely across the enterprise.

"Our goal was to find a forms automation solution that would eliminate document loss, cut costs and improve patient flow, support patient safety goals, and increase satisfaction," Meharg says. "Access had proven experience working with multiple vendors and platforms, so its solutions were a perfect fit alongside our EMR system selection."

Improving EKG Report Management

As at many facilities, staff at Norman Regional's heart stations and in the HIM department found managing EKG reports time-consuming. Administrators looked for a way to improve the process.

> "We needed a way to get EKG reports directly into patient records, and anytime we want to interface information into MEDITECH's Scanning and Archiving Module we turn to Access," says Beth Summers, decision support system analyst.

Access Universal Document Portal (UDP) captures EKG report print streams and indexes them directly into MEDITECH Scanning and Archiving, where they are automatically linked to patient records in the MEDITECH HIS.

"We'd recently purchased a new EKG system and UDP is the final piece of the technology puzzle at our heart stations," says Christie Walkup, senior financial analyst.

One of the benefits offered by UDP is a reduction in manual tasks. Before deploying the product, staff members prepared an EKG report and printed it. HIM personnel then selected the appropriate patient in MEDITECH and scanned the report. With UDP, managing EKG reports is completely automated.

"Using UDP means staff at our heart stations don't have to scan anything into the record and we've eliminated a cumbersome manual process for staff," Summers says.

A further advantage UDP provides is elimination of potential human errors from Norman Regional's EKG report management.

"Before we had UDP there was the possibility of personnel selecting the wrong patient in MEDITECH before they scanned the EKG report, and this wouldn't have been noticed until later," Walkup says. "Now we know each report is going to the right place in a timely manner, and the image will be of good diagnostic quality."

The success of any IT project rests upon the skills of the professional services team that facilitate its deployment. Summers finds that Access's staff members have exceeded Norman Regional's expectations in this area.

"Access products are improving patient safety as part of our barcoding solution, by ensuring positive patient identification every time. Quality of care has also improved because nurses use the barcodes for bedside collection of vital signs, specimen collection and to make sure that all orders for the patient have been placed."

"As with the other components of our forms automation solution, Access's project planning and service with our Access UDP implementation was the best," she says. "Their implementation and support teams consistently go above and beyond to get us what we need."

In addition to improving EKG report management, UDP can capture feeds from fetal monitors, glucometers and other clinical monitoring devices and automatically index them in MEDITECH Scanning and Archiving or any other document management system for easy and seamless assimilation into EHRs.

"Access UDP is a versatile utility that has great possibilities for our other clinical devices," Walkup says.

Reducing Patient Anxiety

Patient registration was the first area Norman Regional deployed IFS in. The hospital's IS team found it easy to convert existing forms, as part of a smooth deployment.

"Forms conversion was simple and Access delivered everything they promised," Meharg says. "They care about their customers and are looking for ways to continually improve their products."

Prior to using IFS, Norman Regional's admissions clerks relied on paper forms that were printed in a work area. Each time a new or returning patient came to the registration desk, a staff member completed the registration, got up from his or her desk, walked down a hallway and spent several minutes obtaining the forms and creating the armbands required for admission. They'd then return and ask the patient to review and sign the forms. Finally, they left the desk to make copies to be sent to various departments. Meharg explains the problem with this.

"When a patient comes to our facility, their anxiety level is high because they're ill and often unsure of the process or outcome," he says. "A registrar getting up to perform manual tasks adds to this anxiety and takes away the caring environment."

With the Access system, a customized packet of forms and armbands is produced the instant patient registration is complete and the registrar never leaves the patient.

"Access IFS enables our registrars to spend more time with patients, which puts them at ease," Meharg says. "It should help improve patient satisfaction."

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Improving Information Sharing

A further issue with the manual registration process was that the face sheet used on each registration packet could be misplaced once the patient had moved into a clinical area. Such misplacements wasted employees' time, as they had to request duplicates from the registration desk and wait for them to arrive. IFS has overcome this issue, as all information is now available electronically.

"With the Access solution, clinicians on the floor and staff in the billing office and HIM can retrieve the patient information they need, rather than waiting for folders to be passed around," Meharg says. "Data is available in real time and that has a positive impact patient care."

Manual forms processing can lead to inaccuracy and delayed information sharing. Meharg believes that IFS allows his staff to sidestep these issues.

"Now we're using e-forms, there's no guesswork involved in determining a patient's primary care physician, next of kin or other details, because they're always correct," he says. "Timeliness and accuracy of data has improved."

To further improve information sharing across the hospital, Norman Regional is using Access Image Portal, which ports forms directly into the MEDITECH Scan Archive (SCA) document management system. As the forms are auto indexed, there's no need for time-consuming, error-prone manual data entry.

"Access Image Portal has become a valuable component of our health information management process," Meharg says. "Simply put, the Image Portal makes the process more efficient. It allows our resources to spend less time managing paper, and more time putting that information to good use for the benefit of our patients."

Improving Patient Safety

Another way in which Access products positively impact patients at Norman Regional is through the hospital's use of barcoded wristbands. Once a patient is registered in MEDITECH, the registrar simply clicks a button to send demographics to the Access application. The Access Patient Label System (PLS) then prints demographics on barcoded wristbands for the patient.

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Powering Productivity, Slashing Costs

Dealing with hard copies of pre-printed forms once incurred high storage, supply and printing costs at Norman Regional. Now, forms are managed in a secure electronic repository and printed on demand, dramatically reducing overhead.

"We've cut the cost of paper, folders and other forms-related supplies and that is the name of the game in this economic climate," Meharg says. "Managing forms electronically has also taken the burden off our in-house print shop."

From patient registration to clinical floors to HIM and beyond, managing paper forms used to engage Norman Regional staff members in numerous time-consuming tasks. By automating forms processing, the IFS suite enables employees to focus on patients and key responsibilities instead of pushing paperwork.

"The Access solution is putting productivity back into every department that uses it," Meharg says.

Responsive Customer Service

Without a knowledgeable and responsive company to back them up, even the most effective IT products lose value. Norman Regional finds Access's support to be as important as the impact of the company's forms automation solutions.

"It's a large benefit to be able to call the CEO of Access to discuss changes," Meharg says. "I've found everyone from sales people to implementation consultants to support staff to be innovative and great to work with."

Norman Regional plans to extend its use of Access solutions in the near future, rolling out the system to other areas and making use of the e-Signature module in conjunction with tablets in the registration area. Meharg is satisfied that the time and cost savings the IFS suite provides have justified his team's choice of forms automation vendor.

"Choosing Access is one of the most solid business decisions we've made in a long time," he says. "It has solved problems and opened up new opportunities for efficiency. In the current economic climate we have to do more with less, and our Access solution allows us to do just that."