



Case Study: Specialty Hospital/Patient Records

Kansas Surgery and Recovery Center

The Kansas Surgery and Recovery Center (KSRC) is an elective surgery specialty hospital located in Wichita, Kansas, serving as an alternative to hospitalization for elective surgery patients. HCIA, Inc. and The HealthNetwork.com recently named KSRC as one of the Nation's 100 Top Orthopedic Hospitals. KSRC was founded in 1994 and since then the hospital has grown to include nearly 130 employees, eight operating rooms, two special procedure rooms, 30 pre and postoperative stations and 24 inpatient beds. Patients of all ages and backgrounds come to KSRC for a range of procedures including: orthopedic procedures (including arthroscopy, carpal tunnel release, and total joint replacement), dental and oral surgery, general surgery, ear, nose and throat surgery, gynecological surgery, endoscopy procedures, podiatry, pain management, ABBI (advanced breast biopsy), plastic surgery and diagnostic imaging services.



The Problem

KSRC's medical records department is responsible for handling all of the patient record files for the hospital. This responsibility includes insuring that patient records are complete, securing records against

improper access, archiving records and retrieving medical records as needed.

A single surgical procedure may require numerous paper records, including operative notes, physician notes, inpatient forms, test results, MRI results, surgical photographs, insurance information, billing worksheets and medical background. All of these documents need to be securely filed, and yet they must be accessible for doctors and other authorized hospital personnel. Keeping meticulous account of patient records is important to KSRC, not only because federal regulations require it, but also to be able to provide a complete medical record in case of any future medical issues or subsequent surgery a patient may require.

As KSRC began to grow, the medical records department became responsible for handling an increasing number of patient records. "Our patient records' staff was trying hard to stay on top of the work, but early last year it became clear that we were either going to have to add staff to the department or find another solution as the work load became too great for existing staffing levels," said Ashley Simon, Director of Business Operations.

Considering this and several other factors, KSRC's

Industry:

Elective Surgery Specialty Hospital

Application:

Patient Records

The Problem:

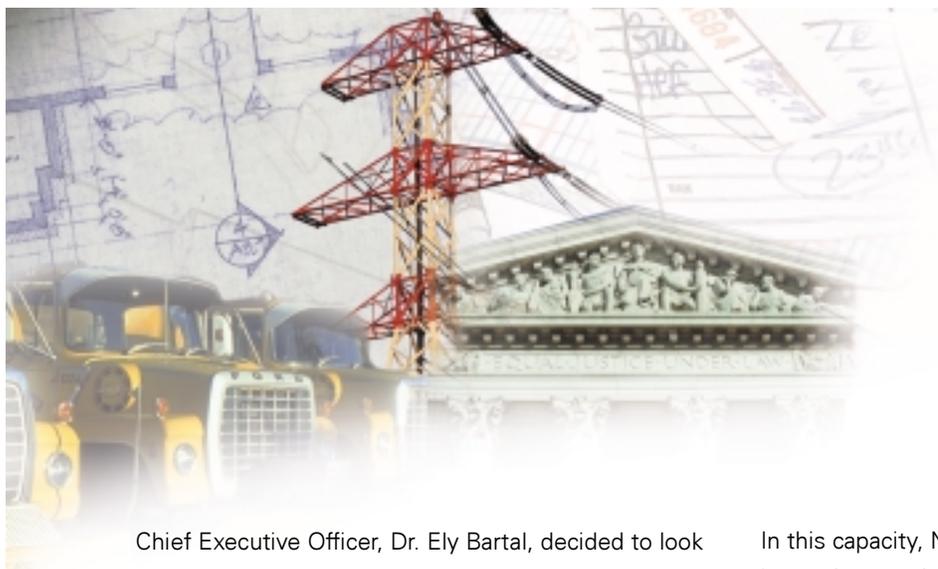
Growing hospital wanted to streamline patient records management without adding staff

The Solution:

DocuWare document management system

The Benefit:

DocuWare provides the hospital with a fast efficient way to manage and secure a growing number of patient records



Chief Executive Officer, Dr. Ely Bartal, decided to look for a more comprehensive solution than simply hiring more employees. One such consideration was that record storage space within the facility was rapidly dwindling. In fact, the facility was already storing some of its older records in another facility close by. Dr. Bartal could see that with the continued growth the Center was experiencing, he would soon need to look for additional file storage space to accommodate the paper being generated. Dr. Bartal decided to begin searching for a more comprehensive solution before these minor inconveniences blossomed into a serious problem.

KSRC, from its inception, decided to focus internal resources on patient care, opting where possible to use external professionals for hospital services. Following this philosophy, in 1995 KSRC hired NetSystems, LLC to serve as the hospital's information technology (IT) department. Since 1995, NetSystems has worked closely with KSRC staff in planning and implementation of all of its IT projects.



In this capacity, NetSystems has managed KSRC's internal network, its Web site, and coordinated numerous other vendors to assist the facility through six years of steady growth. Sensing that the solution he had in mind was technology based, Dr. Bartal turned to NetSystems and asked them to research and recommend a solution.



Paula Kavan, NetSystems' Software Development Manager was assigned to work on the request. Knowing that an imaging-based document management solution was the way to go, NetSystems requested and evaluated twelve potential software solutions. With a thorough knowledge of the facility and a clearly defined set of goals, Kavan and her team quickly narrowed the twelve solutions down to three. From there, the applications were evaluated on several factors including: security features, bar code recognition capabilities, interoperability with KSRC's existing systems, the solutions' ease of use, and price.

Only the DocuWare document management software from DocuWare Corporation met all of NetSystems' criteria. "We saw many solutions that would help us to get documents scanned into a system quickly and easily," remembers Kavan, "but until we saw DocuWare, we hadn't seen a solution that would secure patient records in a manner that met both



KSRC's needs and the federal regulations identified in the Health Insurance Portability and Accountability Act (HIPAA) of 1996."

Seeing a live DocuWare demonstration by Imaging Solutions Company, an authorized DocuWare reseller, convinced NetSystems that a complete solution built around DocuWare was the one they would be confident in recommending to KSRC. Shortly after receiving the recommendation, KSRC's Board of Directors approved NetSystems' recommended solution.

The DocuWare Solution

After receiving approval from the Board of Directors, NetSystems set about reconfiguring hospital forms to include bar codes, and writing custom software that would allow KSRC's patient management software to communicate with the DocuWare document management program.

NetSystems' custom software program was designed to retrieve patient information from KSRC's existing patient management software and export that information to DocuWare to aid in indexing the scanned patient records. NetSystems' software helped to automate the indexing process by eliminating any need for manual data entry. "Because DocuWare's AUTOINDEX module was so flexible in terms of the data formats it could read and understand, I was able to easily write a program that helped the two systems communicate," says Kavan.

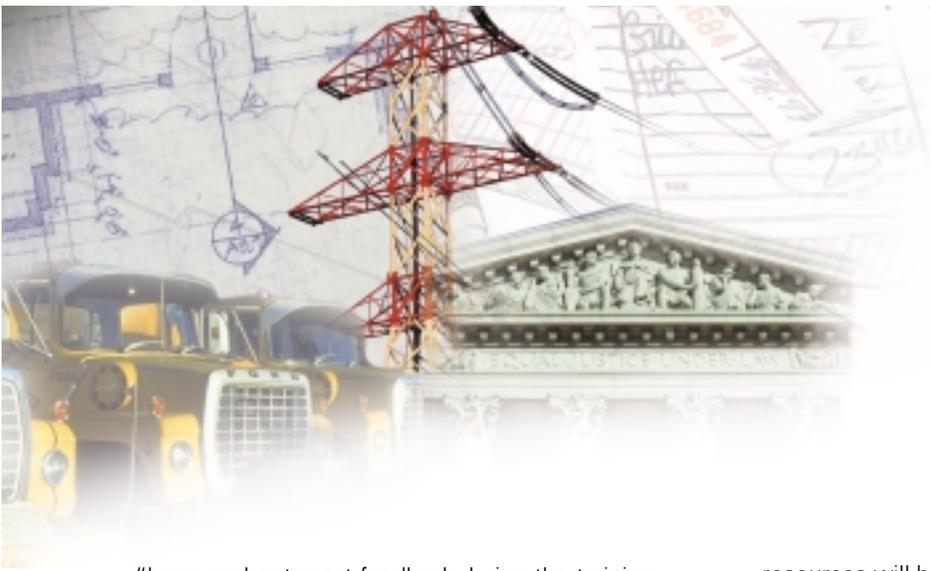
The other major project undertaken by NetSystems was re-working all of KSRC's 255 various forms so they could be used in conjunction with bar codes.

Using bar coded forms was another way to eliminate manual data entry. "Revamping the hospital's many forms took time," recalls Kavan, "but it was a key to reducing the labor needed to make the document management system work so well."

NetSystems carefully planned and coordinated installation to minimize the impact to the hospital facility. "NetSystems did an outstanding job preparing for our transition to DocuWare," said Simon. "The DocuWare installation went as smoothly as could possibly be expected and today DocuWare is performing flawlessly."

Once the hardware and software was installed, NetSystems trained the medical records department employees on the use of the new bar coded forms and exporting information from the patient management software to DocuWare. They also trained KSRC staff on how to store, retrieve and search for patient files. "I could tell that DocuWare is going to be a big hit with hospital staff," says Kavan,





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*Debbie Johnson
Business Office Coordinator*

“because I get great feedback during the training sessions. The staff is excited about the system because they can see how much easier and faster it will make some aspects of their job.” NetSystems is also creating a browser based training seminar to allow the staff to review procedures as needed.

KSRC added document review to their quality control review processes to ensure that documents are being brought into the DocuWare system properly. After the review, paper documents are destroyed.

Four months after receiving approval from the Board, NetSystems had all facets of the new system fully operational. In total, it was just seven months after the Board’s decision that the DocuWare solution was performing to full capacity.



DocuWare Results

According to KSRC and NetSystems estimates, KSRC will achieve a return on their DocuWare investment within two years. Without moving to DocuWare, Ashley Simon believes she would have had to add at least one full-time medical records person. With DocuWare, their current staffing level will be able to handle the increasing workload for the foreseeable future. They also estimate savings in human

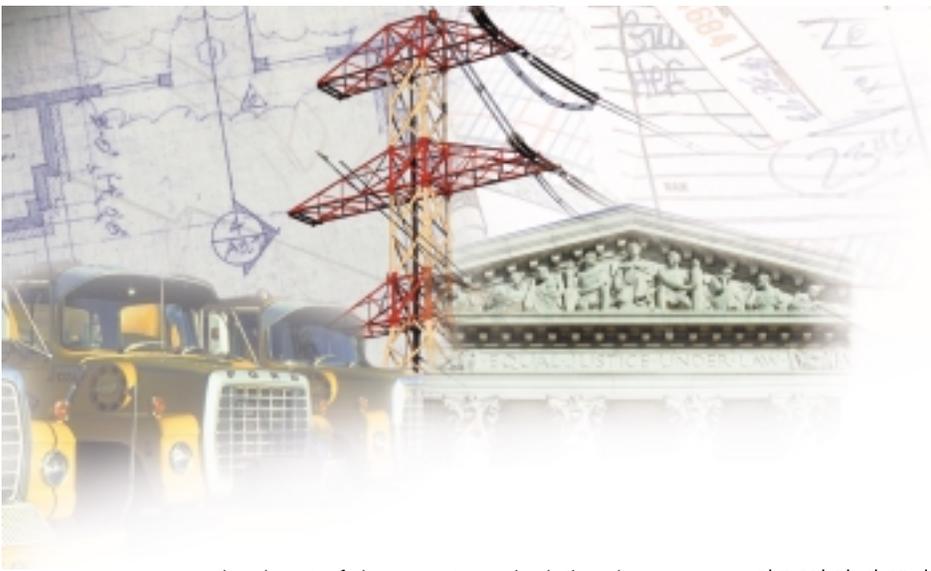
resources will be realized as records are accessed from other areas of the hospital. “Medical records staffing concerns were the primary reason we began searching for a new solution,” said. Simon “and we will be able to recover our direct investment based on this single factor.”

“We are so pleased to have DocuWare at our hospital,” said Debbie Johnson, Business Office Coordinator. “It has made so many of our tasks easier and faster. Now, we can open a file, look for the information we need and close the file in less time than it used to take us just to track down the record. And no more re-filing! We couldn’t be happier.”

In addition to resolving the personnel issue in the patient records department, the DocuWare based solution was able to resolve a number of other issues for KSRC.

Need for Patient Records Storage Space Eliminated – Because DocuWare meets the security standards established by HIPAA, KSRC is able to destroy paper files once they’ve been scanned into the system. KSRC decided to convert all its patient records from the year 2000 to electronic images. Once this has been completed, they’ll be able to remove the shelving designed to hold the patient files and re-configure the space for more efficient document scanning. Patient files from 1999 and earlier have been moved to a secure off-site storage facility, where they can be accessed if necessary.

Improved Patient Record Security – Not only have DocuWare’s security features allowed KSRC to



remove the threat of document manipulation, but KSRC is able to assign access to specific files to each hospital staff member based on his or her job needs. KSRC is able to give view-only access to hospital staff, and to limit the types of documents each staff member is allowed to see. For instance, the billing department may be allowed to retrieve records related only to a patient's bill and health insurance. Or a doctor may be limited to viewing records for his patients only. KSRC is confident that DocuWare's security features exceed the requirements of federal legislation, and protect the rights of doctors and patients.

Convenient Patient Record Retrieval - With DocuWare, hospital staff members are able to retrieve records from any computer in the facility. "It's very convenient to be able to get the information you need from a patient's records on a PC, rather than having to stop your work to go track down a record that's stored in another part of the building," said Bonnie Thompson, Director of Nursing.

Simplified Record Retrieval – Because patient records may be retrieved using any number of indexing criteria, the hospital can pull files in a way they never could before. For instance, they can retrieve records on all the knee replacement procedures they've performed on patients within a certain age group, allowing the facility to better identify its primary customers, and to plan resources accordingly.

In addition, because DocuWare allows the hospital to retrieve data so quickly, they can now participate in

clinical studies. If asked for surgical records on shoulder replacements performed on women, they can quickly view all pertinent records to see if the patient matches the clinical study's requirements. This is something that just couldn't be done when the files existed only on paper.

The Future

Within the first months of using DocuWare, NetSystems and KSRC realized that other areas of the hospital could benefit by moving their paper files to DocuWare. "In just the short time that we've had DocuWare running at KSRC we've discovered several additional tasks that could be streamlined by using DocuWare," says Kavan.

The next application NetSystems is working on will convert human resource records to DocuWare based storage. Subsequent possible uses include accounting-related reports and records, and facility policies and management documentation.

Tool Box:

Computers: Gateway PCs and servers.

Operating Systems: The scanning workstation is running Windows NT Workstation 4.0. All other workstations are running Windows 98. The DocuWare server is running on Windows 2000. Other facility servers interfacing with the imaging system use Novell Netware 5.0 and Windows NT 4.0.

Software: DocuWare 4.0 with RECOGNITION 2.0, AUTOINDEX and a custom integration package written by NetSystems, LLC.

Scanner: Kodak 3590C 85 page-per-minute color scanner