



Healthcare Group Grows 600 Percent, Saves >U.S.\$11 Million, Enhances Quality of Care

Overview

Country: United States

Industry: Healthcare

Customer Profile

Crystal Run Healthcare is a growing multi-specialty group practice in New York State.

Business Situation

Crystal Run wanted to expand its services, but an unwieldy legacy practice management system lacked the scalability to support this growth.

Solution

Crystal Run implemented NextGen's Enterprise Practice Management and Electronic Health Record applications on Microsoft® Windows Server System™ integrated server software.

Benefits

- >600 percent growth over 5 years
- >U.S.\$11 million saved
- Accounts Receivable days reduced 24 percent
- Faster response to patients
- More proactive, consistent care

“We're definitely the fastest-growing practice in New York state. NextGen is one of the factors that has allowed us to expand so successfully.”

Dr. Gregory Spencer, M.D., FACP, and Director of Clinical Information Technology, Crystal Run Healthcare, LLP

Crystal Run Healthcare, located in the mid-Hudson Valley of New York State, wanted to serve more patients and provide a wider range of specialties. But Crystal Run lacked confidence that its legacy practice management system could grow with the organization, and the practice needed to simplify the logistics of accessing medical charts. Crystal Run worked with NextGen Healthcare Information Systems, Inc., a Microsoft® Certified Partner, to implement the vendor's Enterprise Practice Management and Electronic Health Records products on Microsoft Windows Server System™. In five years' time, the solution has helped Crystal Run grow from 15 physicians to 100, open seven additional offices, and save more than U.S.\$11 million in transcription and chart access costs—all while improving the quality and consistency of its patient care.

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Doreen Cooper, Systems Administrator,
Crystal Run Healthcare, LLP

Situation

In 1999, Crystal Run Healthcare had a vision of growth for its practice in the mid-Hudson Valley of New York state. Committed to the highest level of patient care and customer satisfaction, the organization was beginning to open satellite offices and add to the list of specialties it offered. Unfortunately, its existing practice management system could not handle the expansion.

“We realized our old system wouldn’t meet our future needs; we wanted something that would grow with us,” recalls Doreen Cooper, Crystal Run’s Systems Administrator. “It was very hard to get simple information out of it—information that we needed to make intelligent business decisions.”

“When we wanted information, we would have to pay the vendor \$2,000 for a customized report, and then wait a couple of months to get it,” adds Betty Curtis, Director of Patient Accounts and Physician Billing.

Given their goal for long-term growth, the Crystal Run team realized they needed an electronic health records system, as well, despite their size of 15 physicians. “The cost justification lay in the fact that we knew we were going to be expanding and growing and adding new facilities,” recounts Curtis. “We couldn’t consider a product that wouldn’t rapidly scale.”

The practice already faced increasingly complex logistics in accessing paper medical charts from different offices. “Our fax machine was burning up from sending charts back and forth,” recounts Dr. Gregory Spencer, M.D., FACP, and Director of Clinical Information Technology.

The organization set out on a search for a new system. Two criteria were paramount: integration between the electronic health records and the practice management

components; and a product that ran on the Microsoft® Windows Server™ operating system and Microsoft SQL Server™. Windows Server 2003 and SQL Server are part of the Microsoft Windows Server System™ integrated server infrastructure software, designed to help IT professionals deliver new business value through simplified solution development, deployment, and management.

“We’d been on a UNIX-based system for years, but we couldn’t do much with it,” explains Doreen Cooper. “We felt that if we were on a Windows® platform with SQL Server, it would be easier to add interfaces to different components as needed. We found out later that it’s also easier to get qualified staff to administer Microsoft systems.”

Solution

A Mature Microsoft Application

After a careful review of industry solutions, Crystal Run decided on NextGen EPM (Enterprise Practice Management) and EHR (Electronic Health Records), two applications from NextGen Healthcare Information Systems, Inc., a Microsoft Certified Partner and a consistent award winner for best EHR solutions at the “Toward an Electronic Patient Record” and Healthcare Information and Management Systems Society conferences. Crystal Run based its decision on the sophistication of NextGen’s development on the Windows platform, the system’s overall flexibility, and the company’s customer focus.

“We looked at a lot of vaporware and systems that were in the early stages of development,” Cooper relates. “The EPM and EHR from NextGen Healthcare were mature products that had been developed on the Windows platform from the beginning. At that time, the others didn’t have a Windows back end, and we were trying to get away from that.”

“NextGen Healthcare wanted a relationship with us; they had a partnering mentality that we found appealing. Altogether, a number of factors impressed us about the company and its products.”

Doreen Cooper, Systems Administrator,
Crystal Run Healthcare, LLP

“There were also certain things we decided we couldn’t live without,” Cooper maintains. “For example, we had to manage many different rules from insurance providers regarding mid-level practitioners. NextGen Healthcare was the only one that had built something into its system to handle those kinds of complexities.”

“NextGen EPM also had the most flexible appointment book we’d ever seen,” continues Cooper, “and the integration between the EPM and EHR was extremely tight.”

She concludes, “NextGen Healthcare wanted a relationship with us; they had a partnering mentality that we found appealing. Altogether, a number of factors impressed us about the company and its products.”

From Appointments to Lab Results

Shortly after signing the contract in 1999, Crystal Run had a cable infrastructure installed for the Windows-based client/server network – preparing to break from their old UNIX terminals. “NextGen Healthcare took it from there,” recounts Cooper. “They built our servers, put in our workstations for us, set up the Microsoft Exchange Server and SQL Server, and showed us what we needed to know.”

Initially, in 1999, NextGen Healthcare installed its applications on the Microsoft Windows NT® Server 4.0 operating system with Microsoft SQL Server 7.0 on an IBM Netfinity 7000, and with Microsoft Exchange Server 5.5 on an IBM Netfinity 3000. An IBM Netfinity 5000 supported the NextGen reporting environment and a Citrix communications component. Since that time, Crystal Run has upgraded to the Microsoft Windows 2000 Advanced Server operating system, Microsoft SQL Server 2000, and Microsoft Exchange 2000 Server. The organization now plans to upgrade to

Microsoft Windows Server 2003 and Microsoft Exchange Server 2003 in the second half of 2004. Crystal Run is currently using the Compaq/HP Proliant DL3xx/5xx Series as its hardware platform.

Crystal Run’s network architecture features a combination of wired and wireless clients. Cooper explains, “We have fixed workstations for nurses, but physicians have been wireless from the beginning. We wanted the technology in the exam room to be as unobtrusive as possible, so the physician takes the laptop from room to room, or building to building, or even home. If a doctor is on call, he or she can log in from anywhere via the virtual private network (VPN) and look up patient medications or a chart.”

The combined NextGen and Microsoft solution streamlines the comprehensive daily administrative and clinical processes of Crystal Run, from initial contact with a patient through billing for each visit. NextGen EPM includes such functions as appointment scheduling and registration, accounts receivable, collections, and analytical reporting. NextGen EHR includes electronic charts, follow-up and recall tracking, medication management, and diagnostic coding management. Both components utilize intelligent workflow processes integrated with Microsoft Exchange and the Microsoft Outlook® messaging and collaboration client, which enables additional features such as a patient tracking mechanism.

Crystal Run has also integrated the NextGen software with the Harvest Lab Information System from Orchard Software, the Radiology Information System from GE Medical Systems, and the Appointment Reminder System from Televox. The lab and radiology information systems import clinical data into patient charts; the Televox system ties into the NextGen patient database and supports

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automatic telephone calls about upcoming appointments.

Benefits

Since implementing its NextGen and Microsoft solution, Crystal Run Healthcare has expanded dramatically, improved its business performance, and enhanced its quality of care.

“We're definitely the fastest-growing practice in New York State,” declares Dr. Spencer. “NextGen is one of the factors that has allowed us to expand so successfully.”

600-Percent Growth Over Five Years

From 1999, when Crystal Run first implemented the NextGen solutions, to the spring of 2004, the practice grew from 15 physicians to 100, and Crystal Run was planning to hire 40 more by the end of the summer. NextGen and the Windows Server System have facilitated this growth rate of more than 600 percent over five years by streamlining operations through intelligent workflow and quick access to patient and financial data.

■ Improved Business Intelligence

The practice has strategically planned and managed its growth by using the NextGen report writer component to easily “drill down” into the system's data.

“We started making smart business decisions with NextGen and Microsoft SQL Server,” asserts Doreen Cooper. “The queries we can run with the report writer help us decide whether to open a new office, and if so, what specialties should be there. For example, we can look at our patients by ZIP code. If a high percentage of cases for urgent care or radiology are coming from another county, we can put a new office there.”

■ Greater Scalability

NextGen Healthcare's EHR and EPM have grown with Crystal Run and have actively contributed to its expansion by simplifying logistics, increasing employee productivity, and freeing staff resources.

Streamlined Patient Chart Management

Crystal Run has felt a positive impact throughout its operations from the conversion to electronic health charts. Dr. Spencer argues that without NextGen EHR, “We couldn't have kept track of everything we needed to grow from 3 to 10 offices. I don't know how people do it with paper charts.”

“Because we have an EHR system, we haven't had to add any storage space for records as we've added offices,” adds Cooper. “Relative to our number of patients, we have a very small records room, which is all archival. That means we can put our space to more productive use.”

Simplified Scheduling

NextGen has also helped Crystal Run accommodate a significant increase in physicians by reducing the labor involved in managing appointments.

“If we hadn't moved from our previous system, scheduling appointments would probably be a full-time position. Now it's one of many projects that someone does,” explains Curtis.

Shortened Training Periods

Because of the ease of use of NextGen, Crystal Run has also cut new employee training time in half, according to Cooper.

“We are finding that it's much faster to train new employees,” she says. “A new doctor learns the system in three days. In four years, we've quadrupled the number of people on our system. You can't scale that way if it's difficult to teach people how to work with it.”

"We get 2,000 telephone calls per day, and 1,400 office visits. That adds up to \$17,000 saved per day from NextGen EHR."

Doreen Cooper, Systems Administrator,
Crystal Run Healthcare

Enhanced Staff Efficiency

The time savings from NextGen enable Crystal Run employees to provide a higher level of responsiveness to daily patient concerns.

"We are committed to customer service," Betty Curtis emphasizes. "We are not trying to reduce full-time employees; we are trying to improve the patient experience. If someone wants an appointment, test results, or to renew a prescription, we can take care of that right away, because NextGen enhances the staff we have."

U.S. \$11 Million Saved

Crystal Run has cut operational costs in numerous areas as a result of the NextGen and Microsoft solution.

■ **U.S. \$3.5 Million Saved in Transcription Costs**

By implementing NextGen EHR, Crystal Run Healthcare has virtually eliminated transcription costs. Previously, the practice was paying \$1,500 per physician per month for transcription. A conservative estimate suggests that the practice has saved more than \$3.5 million in transcription services since the installation.

■ **U.S. \$8 Million Saved in Chart Access Costs**

Installing NextGen EHR has contributed substantially to Crystal Run's savings by eliminating the average \$5.00 cost to access an individual paper chart. "We get 2,000 telephone calls per day, and 1,400 office visits," Cooper states. "That adds up to \$17,000 saved per day from NextGen EHR."

Calculating since 1999 and accounting for the increase in physicians, Crystal Run has saved more than \$8 million in chart-access costs since the original deployment of NextGen.

■ **Accounts Receivable (A/R) Days Reduced 24 Percent**

NextGen EPM has allowed Crystal Run to reduce A/R days by simplifying the billing process. "A patient bill used to be in Accounts Receivable upwards of 55-66 days. Thanks to the EPM, we've reduced that time to 45-47 days, or sometimes less," says Betty Curtis.

■ **Reduced Claim Denials**

Crystal Run has reduced its rate of insurance claim denials and improved its collections by using NextGen EPM. "One of the very nice features of the EPM is the claim scrubbing tool," reports Cooper. "The system automatically enforces all the different rules that insurance payers use to bounce a claim, such as missing data. This means we send more 'clean' claims, and get reimbursed more quickly."

■ **Increased Levels of Reimbursement**

NextGen EHR contains a document generator that facilitates detailed chart notes during a patient visit. This allows doctors to record more easily all of the tasks they perform, even in complex cases.

"It's no longer a nuisance to dictate all the additional information required to support billing for appropriate levels of care," says Cooper. "Now we know that we are billing correctly with NextGen, and our rates have gone up as a result."

Enhanced Quality of Care

Perhaps most important, the NextGen and Microsoft solution has given Crystal Run comprehensive support for its clinical processes, which has helped the practice to increase its level of service to individual patients, specific risk groups, and the community as a whole.

“With NextGen EHR, I really feel like I have my arms around everything. It’s such a bonus to feel like you’re getting all the information you need, and that there’s nothing missing—that there’s a safety net.”

Dr. Gregory Spencer, M.D., FACP, and Director of Clinical Information Technology, Crystal Run Healthcare, LLP

■ **Faster, More Informed Communication**

The tight coupling of NextGen’s patient tracking and workflow capabilities with Exchange Server facilitates and speeds communication between doctors and patients, and among the physicians themselves.

Faster Response to Patients

With Crystal Run’s old system, administrators would write down messages from patients on pink slips of paper. Those slips were delivered by hand to practitioners, who, in most cases, would return calls at day’s end, working their way through the piles of paper.

Since implementing NextGen, Crystal Run has added a centralized call center that relies heavily on NextGen’s workflow module and integration with Exchange Server and Outlook.

“We use the call center for inbound contact from our patients,” Cooper details. “Call center staff captures the information in NextGen and forwards it to the physicians by e-mail. Once the practitioners address the issues, they write up the outcome in the EHR. Both the initial e-mail and the outcome are automatically inserted in the patient’s chart.”

As a result, asserts Cooper, “The NextGen integration with Exchange Server and Outlook dramatically reduced the turn-around time for responses to patients. That does a lot for customer satisfaction, and that’s very important to us.”

Increased Practitioner Collaboration

NextGen’s workflow and integration with Exchange Server also increases dialog among physicians about their cases. “The EHR provides a very nice collaborative tool,” says Doreen Cooper. “You can send an e-mail message with a link to a NextGen template or document. You just open the message, and it inserts right into the patient’s chart.”

“The physicians use that functionality,” she continues. “It really fosters a much greater level of communication between everyone in the organization—which means better patient care.”

■ **More Proactive, Consistent Care**

More Time Spent with Patients

NextGen’s document generator helps Crystal Run’s physicians spend less time on paperwork and more time with patients. “NextGen lets you ‘parallel process’ and do a lot of the documentation while you are in the room with the patient, which saves time,” says Dr. Spencer.

“I am probably seeing 30 percent more patients than five years ago—between 30 to 40 people a day—and I’m going home at the same time as when I was seeing 25. And, I’m almost always done with my documentation five minutes after I walk out of the last patient’s room. I’m more experienced, but NextGen has contributed to my increased productivity.”

The NextGen EPM appointment management feature benefits Crystal Run nurses as well, permitting them to use their time more effectively. “With the NextGen appointment updates, you can see how many patients are waiting,” explains Cooper. “So nurses aren’t spending time in the waiting room looking for people; they are in the back working more closely with doctors.”

Improved Tracking of Patient Information

Because NextGen maintains such complete medical records, from telephone interactions to physician discussions, it gives doctors confidence that they are not missing any of the data they require to treat their patients.

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Betty Curtis, Director of Patient Accounts and Physician Billing, Crystal Run Healthcare, LLP

need, and that there's nothing missing— that there's a safety net," asserts Dr. Spencer.

"For example," he continues, "we document cardiology visits with NextGen templates, which are available for everyone's review. When a patient comes in after having done a cardiology exam, I already have a preliminary review of the lab results."

Reduced Prescription Errors

NextGen's medication module has also reduced prescription errors at Crystal Run, another aspect of the safety net to which Dr. Spencer refers.

"First, NextGen checks for drug interaction conflicts," explains Cooper. "Second, printing out a legible prescription reduces the number of phone calls from pharmacies about drug interactions and other questions."

Enhanced Preventive Care

Physicians at Crystal Run have used data generated from NextGen and available in the SQL Server database to monitor group health indicators and react proactively to potential concerns among target populations.

"We query our SQL Server database to make sure that our patients are being appropriately managed for any chronic conditions," says Cooper. "We also make sure that patients are on appropriate medications for their conditions."

"For example," Dr. Spencer elaborates, "we can find out the average blood pressure rating for all of the diabetic patients, and then determine appropriate steps to take."

"We look to see if blood sugars are not well controlled," Cooper adds. "In that case, we schedule patients to see the diabetes education department."

■ **Faster Response to Community Health Issues**

The ease of querying the NextGen patient data stored in SQL Server has allowed Crystal Run to respond quickly and effectively to community health concerns.

Higher Immunization Rates

Crystal Run has leveraged NextGen and SQL Server to help immunize a greater percentage of its patients, as indicated by the organization's response to a shortage in flu vaccine.

"We identified everybody in the SQL Server database who was eligible for flu shots, queued up the names, made 8,000 automatic appointment reminders through the interface with Televox, and dramatically improved our flu immunization rates," recounts Dr. Spencer. "It was very successful. Compare that process to just hoping that public notices in the newspaper will work."

Faster Response to Medication Alerts

Crystal Run has also used the system to respond quickly to situations in which certain medications posed a previously unknown risk.

"We've had a couple of drug recalls since we implemented NextGen," recalls Cooper. "Now we can query our SQL Server database and find out who's on recalled medication and how we can contact them." She adds, "We can also react effectively to changes in treatment philosophy, such as that regarding hormone replacement therapy."

Word of mouth from satisfied patients has continued to keep the practice booming.

"One of the things that keeps people coming back to our practice is satisfaction," summarizes Betty Curtis. "If they call and get an immediate response, we are going to have happy patients. Then they tell their friends

For More Information

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For more information about Crystal Run Healthcare products and services, call (845) 703-6999 or visit the Web site at: www.crystalrunhealthcare.com

and neighbors. Our constant goal is to provide quality care and the utmost in customer satisfaction. The capabilities of NextGen and Microsoft allow us to do that, and everybody wins.”

Microsoft Windows Server System

Microsoft Windows Server System integrated server infrastructure software is designed to support end-to-end solutions built on Windows Server 2003. It creates an infrastructure based on integrated innovation, Microsoft's holistic approach to building products and solutions that are intrinsically designed to work together and interact seamlessly with other data and applications across your IT environment. This allows you to reduce the costs of ongoing operations, deliver a more secure and reliable IT infrastructure, and drive valuable new capabilities for the future growth of your business.

For more information about Windows Server System, go to: www.microsoft.com/windowsserversystem

Software and Services

- Microsoft Windows Server System
 - Microsoft Windows Server 2003
 - Microsoft Windows 2000 Server
 - Microsoft Exchange 2000 Server
 - Microsoft Exchange Server 2003
 - Microsoft Outlook 2000
 - Microsoft SQL Server 2000

Hardware

- IBM Netfinity 7000, 5000, 3000
- Compaq/HP Proliant DL3xx/5xx

Partner

- NextGen Healthcare Information, Inc.

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