

Case Study: DuPage Medical Group

Enhanced Electronic Medical Records Management Improves Patient Care

- Groundbreaking SharePoint, Epic and KnowledgeLake solution
- Improved collaboration, workflow and medical record management
- Increased staff access to critical patient information, presented in a consistent format

"We couldn't be more delighted with our decision to use SharePoint as the platform for our electronic medical records document and content management. The implementation was seamless and the benefits went well beyond what we expected."

– Todd LaVigne, CIO
DuPage Medical Group

DuPage Medical Group initially turned to Epic for advice. While the recommended products would meet the content and document management requirements, they were unable to accomplish the other objectives. DuPage Medical Group then expanded the search to include Microsoft® Office SharePoint Server® with the hope of addressing all of its requirements with a flexible platform that could be built out to address future business needs. Because the SharePoint-Epic integration had never before been attempted, PointBridge's deep SharePoint expertise was tapped to test the viability of such a solution.

Client Profile

DuPage Medical Group is one of the largest physician-owned multi-specialty medical groups in Illinois with over 280 physicians practicing in over 35 medical and surgical specialties. DuPage Medical Group operates from 36 locations in DuPage, Will and Kane counties and is affiliated with top Illinois health care facilities including Central DuPage, Edward, Good Samaritan, Hinsdale and Elmhurst Memorial Hospitals. DuPage Medical Group is known for its investment in cutting-edge medical technology, equipment and state-of-the-art facilities.

Committed to providing the highest quality care and service to each patient, DuPage Medical Group's primary care and specialty physicians work together as an integrated team. DuPage Medical Group relies upon information technology systems to support its collaborative approach to patient care, realizing that the state of its electronic medical record system has a direct impact on each patient's experience.

Business & Technology Challenge

DuPage Medical Group had invested in an industry-leading medical records system to enable collaboration among care providers and coordination with administrators. At the heart of this system, is Electronic Medical Record (EMR) software from Epic Systems. The Epic EMR system worked very well, but would be challenged to accommodate the anticipated future growth in documentation. With an expanding staff of medical experts and increasing numbers of patients under care, DuPage Medical Group would require a system that could handle an estimated 5,000,000 new pages of documentation per year.

Committed to staying at the forefront of technology, DuPage Medical Group proactively sought a solution that would reduce the pressure on their existing EMR system, improve their EMR information management and ultimately result in better patient care. As DuPage Medical Group looked to the future, they envisioned an EMR system that would:

- Integrate with the existing Epic EMR software
- Accommodate the anticipated growth in records and documents
- Eliminate virtually all paper-based documents and files
- Require minimal training and process changes for the medical staff
- Offer a flexible platform for future enhancements

"This has been a very exciting and highly gratifying project. The SharePoint platform met all the technology and business requirements-- and offered so much more than the other technologies under consideration. DuPage Medical Group is now just beginning to realize the tremendous flexibility and value."

– Todd Golden, Director of Alliances
PointBridge

The PointBridge and KnowledgeLake Solution: An Electronic Medical Records System Built on a SharePoint Platform

PointBridge facilitated a three-day Proof of Concept (POC) session at the Microsoft Technology Center (MTC). Working closely with representatives from Epic Systems and DuPage Medical Group, PointBridge was successful in demonstrating the exchange of data between Epic's medical record software and SharePoint, paving the way for the first integration of the two systems in the U.S. To address paper-based documents, PointBridge turned to KnowledgeLake, a Microsoft partner with a technology product that seamlessly scans and indexes hardcopy items directly into SharePoint. As part of the POC, the KnowledgeLake technology was evaluated.

Once it was apparent the SharePoint-based solution offered greater functionality and flexibility, PointBridge was engaged to architect and implement a solution that would fully integrate DuPage Medical Group's Epic system with the SharePoint platform. The solution was designed to provide a seamless experience for busy medical staff team members that were familiar only with Epic. The new content and document management SharePoint platform would not require them to change the way they worked. However, behind the scenes the SharePoint platform was ready to scale to 5,000,000 new pages of documentation per year, allow up to 2,000 potential users, and accommodate 100 concurrent users.

To meet the goal of a complete transition to electronic medical records and the elimination of paper files, PointBridge partnered with KnowledgeLake, a leading provider of document imaging and capture products for SharePoint-based enterprise content management solutions. The KnowledgeLake Capture product and the extensibility offered in the Capture SDK allows DuPage Medical Group administrators and business

users to scan paper documents directly into SharePoint while tagging the content with patient and encounter metadata pulled from Epic. This enables the conversion and entry of documents from a central office in a batch process. In addition, the KnowledgeLake Viewer feature allows clinicians and physicians to access content through the Epic interface, which reduces the end user training requirements. Shortly after the launch, DuPage Medical Group employees were scanning approximately 14,000 documents or a total of 20,000 pages each week. The database of scanned documents quickly grew to over 315,000 including those documents converted as part of the implementation and those scanned by DuPage Medical Group.

DuPage Medical Group and PointBridge worked over a course of three months to ensure interoperability between SharePoint, Epic and KnowledgeLake and to successfully meet all of the document management and business requirements. Beyond the requirements expressed, the SharePoint-based solution offered DuPage Medical Group improved records search, audit capabilities, and analytics. With these business intelligence capabilities, the business users were empowered to more rapidly respond to requests, spot trends and verify information.

The Diagnosis: Better Technology Improves the Patient Experience

DuPage Medical Group has realized both qualitative and quantitative results by moving to the SharePoint-based platform. The solution:

- **Provided easier access** to medical records and a consistent format in which they are presented
- **Reduced operational costs** by streamlining patient records into a central database, and eliminating the need to maintain, store and transport paper-based files within the DuPage network

The move to the SharePoint platform resulted in unanticipated benefits that delivered value beyond the initial technology and business requirements. Several of these benefits are far-reaching and significant. For example, DuPage Medical Group:

- Plans to use SharePoint as the content management system for both internal websites and other document management applications, leveraging its investment

- Gained collaboration and workflow capabilities that have been used to streamline and improve the accuracy of several processes
- Used the business intelligence capabilities of SharePoint to collect raw data and turn it into actionable insight that will empower fact-based decision making that is expected to improve operations and resource allocation

The decision to use an open, standards-based Microsoft SharePoint platform for its content and document management needs, has positioned DuPage Medical Group to meet its technical and business needs now and in the future. Most importantly, the SharePoint-Epic-KnowledgeLake EMR solution is already helping the DuPage Medical Group achieve its mission of providing the highest quality medical care.

"This initiative has done everything we asked for and more. Physician access to our patient's record has improved dramatically and we have significantly reduced our document storage and transportation costs in the process. Every day, this system enables us to deliver on our mission of providing the highest quality medical care."

– Jeff Crowell, Application Architect
DuPage Medical Group

About PointBridge

PointBridge is a consulting company that connects people to people and people to information. The company builds award-winning collaboration and business intelligence solutions with Microsoft technologies including, Microsoft Office SharePoint Server, Microsoft Exchange Server, Office Communications Server and SQL Server. PointBridge is a Microsoft Gold Certified Partner and was recently named the 2009 Microsoft Global Partner of the Year for Online Services. In 2008 PointBridge was honored as the 2008 Microsoft Citizenship Partner of the Year Global Finalist.



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