



Lahey Clinic

Reengineering the way patient care works, while slashing document retrieval time

Benefits

- Improves patient care by providing clinicians and administrators with easy access to medical and other records
- Automates incident reporting process, reducing liability risk and keeping impacting insurance rates down
- Enables faster handling of insurance denials and faster receipt of payments
- Cuts time required for JAHCO approval and accreditation process by 80 percent
- Is expected to reap significant ROI in five years

Business overview

When Frank Lahey, MD, founded a group practice in 1923, his vision was unique: every component of a patient's healthcare would be coordinated under one roof. Today, at Lahey Clinic, more than 480 physicians and 4,600 nurses, therapists, and other support staff work together to meet patients' needs. Physicians from virtually every medical specialty cooperate to develop personalized treatment plans for each patient. At the Burlington, Massachusetts site alone, approximately 3,500 outpatients and 250 inpatients are seen each day. Lahey also has 15 group practices serving other Massachusetts communities.

Challenges

For healthcare providers, replacing paper with electronic records is not a matter of if, but when. Lahey Clinic foresaw the power of technology to improve efficiency and compliance a number of years ago and proactively took action. Lahey physicians, for example, can already access their daily schedules, see if a particular patient has checked in, and reference various codes necessary to the billing process—all by using either wireless hand-held devices or their PCs. However, Lahey Clinic has a much bigger vision than just automating paper-based processes.

To realize electronic health record (EHR) vision

"Our goal is to get all pertinent information into the hands of the people who need it—clinicians, administrators, and, eventually, patients—to provide the best possible patient care and overall patient experience," says Nelson Gagnon, chief information officer at Lahey Clinic. "Ultimately, we envision creating a digital community that fosters safe, efficient, and cost-effective patient care—an environment in which patients can even look at their medical results, interact with physicians, and have their billing questions answered online."

To this end, Lahey Clinic intends to have electronic health records (EHRs) for every patient. Unlike electronic medical records (EMRs) which capture only the medical side of a patient's experience, EHRs capture the non-clinical side as well, such as billing and admissions information.

Business profile

Lahey Clinic

A multi-specialty group
healthcare practice

Industry

Healthcare

Geographies

Main facility with a 314-bed
hospital in Burlington,
Massachusetts, and two regional
centers and 15 community group
practices in eastern
Massachusetts

Business solution

Knowledge management,
patient records management,
quality management and
compliance, contracts
management, archiving
management, transactional
content management

EMC products

EMC Documentum content
management platform, EMC
Captive InputAccel

Deployment summary

Approximately 500 physicians,
administrators, and others use
the Documentum system to
improve and speed processes in
nursing, admissions, medical
records, patient financial services,
legal, and quality and safety. In
phase two, which extends the
system to outpatients, thousands
more will use the system.

EMC partners

Fujitsu Consulting,
Adobe Systems

To integrate information from over 25 diverse systems for a single point of access

To realize such a bold vision, Lahey Clinic knew it needed an enterprise system that could pull information from all of its key systems together in one repository. “We take a best-of-breed approach to information systems, but, even so, we still need over 25 different systems,” explains Gagnon. “One for radiology, one for pharmacy, one for laboratory work, and so on.” To create an effective EHR system, Lahey needed a way to provide a single point of access to a wide variety of content types contained in these different systems.

EMC solution

Lahey Clinic chose the EMC® Documentum® enterprise content management platform because of its extensible architecture and ability to manage all types of content. “The beauty of the EMC Documentum platform is its ability to spread across our entire organization, to clinical as well as non-clinical areas,” says Gagnon. “We saw in the Documentum solution the ability to extend our best-of-breed technologies and reengineer the way we run our business and the way we care for patients.”

The clinic selected EMC partner Fujitsu Consulting to help implement the Documentum platform and other key systems. Fujitsu integrated the Documentum system with Adobe LiveCycle Forms from Adobe Systems and EMC Captiva® InputAccel® scanning software. Fujitsu also helped Lahey identify the six areas in which adding content management would reap the biggest results the fastest: nursing, admissions, medical records, patient financial services, legal, and quality and safety.

Deploying incrementally to gain user acceptance and garner momentum

By deploying first in areas that would show quick results, Lahey Clinic was able to more quickly gain acceptance for the new system from its user community. In phase one, completed in early 2006, Documentum-based applications were deployed to approximately 500 users in the six areas mentioned, within the inpatient environment at the Burlington, Massachusetts, main facility. In phase two, after having succeeded in the more complex but lower volume inpatient arena, these same applications and others are being extended to thousands of users in the outpatient environment, including the 15 community group practices. During this phase, Lahey IT is also designing a portal that will provide access to its key systems and, ultimately, to the EMC Documentum-driven EHR.

Expecting significant ROI in five years

Thanks to all the time and cost savings from improved business processes, Lahey Clinic expects to break even on its capital investment in the EMC Documentum system within two to three years and realize a positive return on investment in approximately five years. “It’s still early but we are on track and have every reason to believe that we will meet this goal,” says Gagnon.

Improving patient care by enabling easier access to clinical information

“We have vast amounts of clinical knowledge here at the clinic,” says Robert Laramie, Lahey Clinic’s director of enterprise content management and portal strategy. “Putting that information in the right hands results in higher quality care and a better experience for the patient.” By providing a single point of access to information from multiple systems, the EMC Documentum system helps Lahey Clinic do just that.

Today, for instance, hospital clinicians can use the EMC Documentum system to easily view a wide range of medical information pertaining to patients' inpatient stays. In the near future, outpatient staff will be able to view the same inpatient information just as easily—for example, just before a patient comes in for a follow-up outpatient visit. They will no longer have to query another system or wait for inpatient information to be pulled and delivered to the clinician.

“The beauty of the EMC Documentum platform is that it can reach across our entire organization, to clinical as well as non-clinical areas. We saw in the Documentum and Captiva solution the ability to extend our best-of-breed technologies and reengineer the way we run our business and the way we care for patients.”

Nelson Gagnon, Chief Information Officer

Improved incident reporting process reduces risk and keeps insurance rates down

One of the first big wins from implementing the Documentum platform was automating the incident reporting process. “In the past, nurses had to handwrite an incident report, then copy it and distribute it to whomever they thought should see the information,” explains Laramie. Now when an incident occurs, any of Lahey’s 2,000 inpatient nurses—and eventually any inpatient or outpatient clinician—documents it online using an Adobe intelligent form that requires the input of all pertinent information. Documentum workflow then routes the form to all the appropriate people, giving them a set number of hours to respond. If they do not respond in the timeframe allotted, e-mail notifications are automatically sent to other individuals to ensure that the issue is addressed. Periodically, quality and safety staff also use the Documentum system to conduct extensive reporting and analysis on the types of incidents that have occurred.

The automated process captures all the information that Lahey needs from an organizational perspective, ensures that incidents are addressed in a timely fashion, informs all who need to know, and reduces liability risk. “Furthermore, the new incident reporting process helped us prove to our insurance companies that we are proactive in managing risk and, as a result, kept our insurance rates from rising,” says Laramie.

Scanning and digitizing paper cuts process time in clinical and non-clinical areas by up to 90 percent

Using EMC Captiva InputAccel to scan paper documents into the Documentum repository and automatically index them for easy search and retrieval has dramatically reduced the time required for both clinical and non-clinical business processes.

For instance:

- Scanning patient records into the system and enabling the printing of these records with bar codes saves nursing unit coordinators two hours each day—a total of thousands of hours annually—producing documents for the patient care process.
 - Scanning patients’ insurance cards and drivers’ licenses in admissions is significantly reducing time spent researching claims and making sure that the right insurance company is being billed—not to mention enabling faster handling of insurance denials and faster receipt of payments.
 - Scanning explanation of benefits (EOB) statements has reduced the average time required for patient financial services to retrieve an EOB by almost 90 percent.
-

-
- Scanning contracts and applying workflow to automatically notify legal staff of expiration and other important dates not only makes the staff more efficient but more proactive as well.

At the end of phase one, Lahey Clinic was scanning approximately 5,000 pages each day into the Documentum system. At the end of phase two, with the extension of Documentum applications to outpatient services, that number is expected to have grown from 40,000 to 50,000 pages.

Cutting JAHCO compliance time by 80 percent

Having all information related to patient care in one central, easily searchable repository is also facilitating the JAHCO (Joint Commission on Accreditation of Health Care Organizations) approval and accreditation process. "With the EMC Documentum system, when the JAHCO folks came in recently and asked to see emergency room patient records, we were able to produce the necessary records in 20 percent of the time it used to take," says Laramie.

Summary

The EMC Documentum content management platform is helping Lahey Clinic, a pioneer in healthcare and the use of healthcare information technology, to improve both patient care and business processes. With the Documentum system, both clinical and non-clinical processes have become much more effective and efficient. And because the system can integrate with and manage content from the organization's many other systems, Lahey Clinic is well on its way toward delivering on its EHR vision. Says Laramie, "The EMC Documentum platform's open, flexible framework has proven time and again that we can extend its capabilities where we didn't think it was possible, to transform and improve the way we do things."



EMC Corporation
176 South Street
Hopkinton, MA 01748
1-508-435-1000
In North America 1-866-464-7381

EMC², EMC, Captiva, Documentum, InputAccel, and where information lives are registered trademarks of EMC Corporation. All other trademarks used herein are the property of their respective owners.

© 2007 EMC Corporation.
All rights reserved. Produced in the USA. 11/07

Customer Profile
H3285