



Partners Healthcare

Managing clinical evidence at the speed of change

Benefits

- Quick, easy access to comprehensive information boosts quality and accuracy of clinical decision support content that drives patient safety, quality, utilization management, and clinical research
- Central repository for clinical decision support knowledge bases streamlines content review and updating
- Online collaboration for making design decisions on clinical decision support knowledge bases increases productivity and effectiveness of the clinical decision support update process

Business overview

Based in Boston, Massachusetts, Partners HealthCare is an integrated health system founded by Brigham and Women's Hospital and Massachusetts General Hospital in 1994. Partners HealthCare is one of the nation's leading biomedical research organizations and a principal teaching affiliate of Harvard Medical School.

In addition to two academic medical centers, the Partners HealthCare system includes community hospitals, specialty hospitals, community health centers, a physician network, home health and long-term care services, and other health-related entities.

Challenges

Evidence-based medical practice—the technique of using the best, most current scientific evidence to make decisions about the care of individual patients—has become a cornerstone of patient care for large, progressive medical facilities such as Partners HealthCare. By definition, evidence-based practice demands quick, easy access to comprehensive and current literature, data, and other information on specific medical conditions and treatments. However, the sheer volume and complexity of this information has placed a strain on physicians and other caregivers who are hard-pressed to keep up with the latest findings. At the same time, insurance providers and the public are exerting growing pressure on practitioners to improve their quality, efficiency, and performance.

At Partners, these business drivers were causing administrators to take a comprehensive look at existing computer-based clinical decision support systems to identify silos, gaps, and other inefficiencies. "Our overriding objective is to provide decision support that improves both the quality of care for patients and the performance of clinicians," said Tonya Hongsermeier, Corporate Manager, Clinical Knowledge Management and Decision Support. "It was becoming more and more difficult to affordably develop, acquire, and maintain the knowledge bases required to deliver meaningful decision support."

Business profile

Partners Healthcare

System of hospitals, research and teaching facilities, clinics, and physicians in Boston, Massachusetts

Industry

Healthcare

Geographies

Metropolitan Boston area

Business solution

Collaboration and content management

EMC products

EMC Documentum content management platform, EMC Documentum eRoom

Deployment summary

Common repository for current and comprehensive clinical decision support content such as rules, order sets, documentation templates, reports, and others; portal for easy search and access; online collaboration and consensus by clinicians when changes need to be made to decision support content to reflect the latest evidence-based standards of care

More streamlined review and decision making

A specific area targeted for improvement was the process by which clinicians reviewed literature and came to consensus on disease management approaches. The company's previous configuration for decision support did not provide adequate tools and personnel for efficient vetting of information and updating of clinical decision support knowledge bases. "There was a lack of transparency into the knowledge already in production, and there were too many bottlenecks when it came time for people to agree on content," said Hongsermeier. "We wanted to provide better support for the content vetting process without requiring our busy physicians to have to attend committee meetings."

Improving organizational effectiveness

In evaluating potential solutions for a more comprehensive decision support system, Partners had several objectives. Most importantly, the new system would reduce the cost and increase the speed in which clinical innovations and evidence could be translated into clinical practice. "Through data-driven improvements in performance, we hoped to improve Partners' effectiveness as a learning organization," said Hongsermeier. "And we needed to bring our knowledge assets into better alignment with business, regulatory, safety, and quality requirements."

"Partners has a long and successful track record in applied clinical decision support; in fact, we've created some of the best systems in production worldwide," she said. "Now, with the explosion in clinical information, it was time to go to the next level."

EMC Documentum solution

To meet these objectives, Partners Healthcare implemented an integrated knowledge management system based on the EMC® Documentum® content management platform and EMC Documentum eRoom® collaboration software. Documentum provides a centralized repository for a library of clinical evidence that can be accessed across the enterprise, and eRoom creates a collaborative workspace for clinicians to review literature and make consensus-based decisions. Together, Documentum and eRoom create a metadata environment for managing the lifecycle of content for the health system's clinical decision support function.

Global control over critical information

Within the Documentum repository, documentation on the design of the content is organized and is made available to users via a searchable knowledge management portal. Proprietary taxonomy and filters have been built so documents can be sorted by a variety of perspectives, clinical disciplines, and other criteria such as application, site, venue, patient population, end user, and clinical care setting.

Physicians, clinicians, quality improvement personnel, and knowledge engineering teams can browse the portal by topic and access all pertinent documents in a specific category such as coronary artery disease management. The documents contain the design specifications and all the relevant information about that particular content artifact including author, business owner, date of last update, and others. According to a set schedule, documents are periodically posted to eRoom so that Partners clinicians can review them and determine whether the content needs to be updated in the decision support system. “A large driver for this new system was our ability to manage changes and updates to knowledge,” said Hongsermeier. “Once the decision has been made for knowledge to change, it needs to happen rapidly and it requires the ability to change rules, order sets, templates, and reports quickly and accurately. Documentum provides the industrial-strength content management functionality to ensure effective change management.”

“The EMC Documentum solutions are playing a key role in our ability to continue enhancing and improving the quality of our clinical decision support knowledge so that we can offer superior quality of care to patients and excellent ‘quality of life’ for our clinicians and other employees.”

**Tonya Hongsermeier, MD, MBA, Corporate Manager,
Clinical Knowledge Management and Decision Support**

Shortening and streamlining review and change

Documentum eRoom has dramatically improved the processes by which reviewing clinicians collaborate and make decisions for standard dosage guidelines and other treatment procedures. Before Documentum and eRoom, documents were maintained in folders on file systems and were related by title and common location only. “It was difficult to know what information had changed from one version to the next or why, and when people moved on to new jobs, folders would get lost,” said Cathyann Harris, Project Manager, Clinical Knowledge Management and Decision Support. “Since documents are now posted to eRooms by Documentum, we’re able to maintain much more extensive ‘metaknowledge’ on each—the who, what, when, where, and why of each piece of information.”

In one example, Partners has created an eRoom to support a database for medication dosing of geriatric patients. The clinicians responsible for reviewing these dosing guidelines according to the latest medical information and literature are able to “meet” in the eRoom, hold on-line discussions, and reach consensus via the eRoom polling functionality. In a typical scenario, a pharmacist proposes changing the frequency of an ibuprofen dosage based on recommendations in updated literature. Once the clinicians have agreed on the new dosage, the pharmacist can post supporting documentation to the eRoom and the system keeps an audit trail of each member’s statements and actions. “eRoom has played a large role in helping us reduce the cost and increase the speed of knowledge acquisition for our decision support systems,” said Harris. “The system has greatly shortened the cycle for making decisions and implementing changes by enabling people to reach agreement online, rather than spending months participating in committees and attending meetings.”

Summary

At Partners Healthcare, the EMC Documentum content management platform and EMC Documentum eRoom have brought new efficiencies to decision support processes and greatly enhanced clinicians' ability to make evidence-based decisions on patient care. The Documentum repository has brought new levels of control and streamlined access to critical information, and eRoom has greatly enhanced clinicians' ability to propose, discuss, and make decisions on changes to treatment guidelines. "The Documentum solutions are playing a key role in our ability to continue enhancing and improving the quality of our clinical decision support knowledge so that we can offer superior quality of care to patients and excellent 'quality of life' to our clinicians and other employees," said Hongsermeier.

About EMC

EMC Corporation (NYSE:EMC) is the world leader in products, services, and solutions for information storage and management. Through information lifecycle management (ILM) strategies, EMC helps enterprises of all sizes manage their growing volumes of information—from creation to disposal—according to its changing value. EMC information infrastructure solutions are at the heart of this mission, helping organizations manage, use, protect, and share their information assets more efficiently and cost-effectively. The result? Information with greater business value and at lower management cost.



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Customer Profile
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