

Implementing a Virtual Electronic Health Record At Hunterdon Medical Center

By Tony M. Brown

The Institute of Medicine has reported that medical errors are responsible for somewhere between 44,000 and 98,000 deaths in the U.S. per year. Due to this and a growing body of data from other studies, President Bush has put forth the goal of establishing an Electronic Health Record (EHR) for most patients in the U.S. within the next decade. It is clear that integrating a patient's clinical information in an EHR that provides all appropriate caregivers with a comprehensive view of key data, such as patient allergies and potential adverse drug interactions, can save lives as well as deliver significant cost savings.

Delivering the best possible patient care as cost-effectively as possible is the mission of Hunterdon Healthcare Partners, a healthcare organization committed to providing a full range of quality services to meet the needs of the residents of Hunterdon County, NJ and surrounding area. Hunterdon Healthcare Partners LLC was created by more than 125 physicians and the Hunterdon Healthcare System, the parent of the Hunterdon Medical Center, which has facilities in 21 locations that serve approximately 347,000 patient encounters annually. An innovator in the use of information technology, Hunterdon has been recognized as one of the nation's "most wired" medical centers for the last four years.

Electronic Health Record

"The 178-bed Hunterdon community

hospital faces the same healthcare delivery and economic challenges as the largest metropolitan hospital networks," says Glenn Mamary, CIO of Hunterdon Healthcare System. "Our charge is to deliver the best possible patient care across the entire healthcare continuum as cost-effectively as possible. Creating a Web-based EHR that provides clinicians and administrators in any location with secure, convenient access to patient data is critical to reaching that objective."

The initial steps on the road to the virtual EHR began in 2004, when Hunterdon selected Ensemble from InterSystems after examining a wide range of integration products and interface engines. "Ensemble's scalability, rapid development, and integration capa-

and other entities," Mamary explains.

Once the Web physician portal is running, the next major initiative will be a referral management system that provides a unified view of X-ray transcripts from three applications: one from Quest Diagnostics, another from LabCorp, and a third lab system from Cerner that is integrated with Quadramed.

Eliminating Redundancy

As a result of integrating the lab testing data, which will provide physicians throughout the Hunterdon IDN with quick and secure access to test results, the possibility of duplicate testing that may be ordered by different departments will be effectively eliminated. Additional benefits from this and other



bilities played a major role in choosing this platform for our integration initiatives," Mamary says.

Rapid Integration

With Ensemble's rapid integration, it was possible to complete a Proof of Concept (POC), which involved integrating the data needed to build a pilot executive dashboard, in just three days. With the success of the POC, Hunterdon developers are moving forward with a series of small projects that will integrate as many as 25 to 30 databases and applications to create a physician portal that will be the foundation for the EHR. "We are going to be integrating a variety of systems and databases—both internal and external to our organization—in a communications network that will include physicians, their office staffs, commercial laboratories,

integration initiatives, including the virtual EHR implementation, include cost reductions through elimination of redundant tests and other clinical processes and reducing the prospect of medical errors.

"Patient safety and delivery of optimal healthcare in all scenarios is our primary focus and goal," Mamary concludes. "These integration initiatives and the virtual EHR that will be their ultimate result illustrate how IT will enable us to reach that goal and help Hunterdon continue to serve its patient community in the most innovative and effective way possible." **bij**

Ensemble is available from InterSystems Corp., One Memorial Drive, Cambridge, MA 02142-1356. Voice: 617-621-0600; Website: www.intersystems.com.