Johns Hopkins Medicine (JHM) Case Study
Direct access to full patient imaging history within the EMR

Johns Hopkins Medicine (JHM), a leading health system in Baltimore, includes six academic and community hospitals, four suburban health care and surgery centers, more than 30 primary health care outpatient sites, imaging centers as well as programs for national and international patient activities. JHM was looking for easy access to image viewing from within their electronic medical record (EMR) system. Johns Hopkins found a solution that enables them to view the full patient imaging history quickly and efficiently within their EMR.

The Challenge
Like many healthcare organizations today, JHM was interested in providing a consistent view of patient information across the enterprise and, to this end, is in the process of rolling out a new EMR. The new system from Epic is live and in use at several JHM facilities. At the same time, JHM has been working to provide enterprise access to patient imaging history and to clinicians directly from the EMR system.

Prior to implementing an enterprise viewing solution, clinicians generally had limited access to patients’ imaging studies. They could only view images stored in the local picture archiving and communication system (PACS) and only if a workstation with the appropriate PACS client was available. When multiple PACS systems, multiple PACS clients, and multiple facilities were brought into the mix, the challenges grew exponentially. Clinicians were burdened with identifying which PACS the images were located in, and then they had to learn and use different PACS client user interfaces. At the same time, IT was challenged to provide convenient, secure access and support of PACS clients across all locations. It is not surprising that these limitations significantly restricted the accessibility of imaging to the clinicians.

JHM had a vision of providing all clinicians with enterprise-wide access to medical images - accessing imaging studies directly through the EMR, discovering and including prior studies regardless of location and allowing side-by-side comparison of these images. Ideally, this would be provided from a single web-based system where clinicians would learn once and then access it through the EMR via their existing laptops, desktops and mobile devices.
The Solution

JHM selected and implemented Vitrea® Enterprise Viewer in phase one of the enterprise viewer initiative. Clinicians can view patient images, radiology reports and related documents from within the EMR via secure link that integrates with JHM’s single sign-on mechanism eliminating an extra login prompt. They launch Vitrea Enterprise Viewer by simply clicking on a link in the EMR and within seconds they are viewing the images and have access to patient prior imaging studies stored within the VNA. Since its introduction at JHM, clinicians have come to rely on the ability to quickly access patients’ medical imaging, and consequently, Vitrea Enterprise Viewer adoption has increased steadily on a month-by-month basis.

Phase two extended this capability by implementing Vitrea Data Stream technology to provide direct access to studies stored in the PACS at Johns Hopkins Suburban Hospital and Sibley Memorial Hospital facilities without requiring data migration, routing, or caching.

The Success

Quick access to all studies, regardless of their location within the J-HM enterprise, was met with enthusiasm as it resolved a long-standing issue of study access across the enterprise.

The combination of Vitrea Enterprise Viewer with Vitrea Data Stream proved to be a solution that addressed the enterprise imaging challenges at J-HM. Vitrea Enterprise Viewer provides secure web-based, zero-footprint access to patient imaging, and Vitrea Data Stream extends this access across multiple systems and archives without costly data migration. Ultimately, this solution enables a holistic view of patients’ medical imaging records, thus enhancing clinical decision support and communication.

Critical success factors in the J-HM implementation of Vitrea Enterprise Viewer and Vitrea Data Stream include:

- Rapid access to imaging studies within the patients’ records in the EMR, with an intuitive suite of tools that provides clinicians with a full patient imaging history.
- Access to a broad set of imaging studies, regardless of how many PACS or VNA systems they are stored in, or where they are located.
- Easy to deploy, easy to maintain solution supporting IT security and reliability needs.

When accessed from a mobile tablet, Vitrea Enterprise Viewer is for informational purposes only and not intended for diagnostic use. Vitrea® is a registered trademark in the US and may have protection in other countries.