Enhancing Clinical Efficiency Throughout a Regional Healthcare System

Technology and process innovation create best practices in cardiology at Sharp HealthCare

"Having a comprehensive, customizable, and easily accessible system gives us the ability to correlate care across 19 clinics and 4 hospitals."

— Krista Fine, C.C.V.T., Clinical Imaging, Information Systems

Sharp HealthCare is a not-for-profit, integrated regional healthcare delivery system based in San Diego, CA. The system includes four acute-care hospitals, three specialty hospitals, and two medical groups, along with many other clinics, and services.

Sharp's strong commitment to excellence is exemplified by The Sharp Experience, an award-winning performance improvement initiative launched in 2001.

Krista Fine, C.C.V.T., Clinical Imaging, Information Systems, and former clinical lead for Heart and Vascular Services at Sharp Grossmont Hospital, says Sharp HealthCare is utilizing GE Healthcare's MUSE® Cardiology Information System to help improve efficiency, raise quality, and reduce costs. The systemwide effort makes it easier to share knowledge, training, and best practices within and beyond the organization.

"As our hospitals centralize electronic medical records, cardiology is leading the way in terms of standardizing procedures across a large enterprise. We're demonstrating how integration can work and the value that can be derived in terms of efficiency and quality by use of standardized systems, such as GE's MUSE system."

The Challenge

In 2007, Sharp HealthCare began developing a strategic plan to expand its ECG management system from two sites to the entire system. The goal was to create a systemwide enterprise cardiology database that would be easily accessible and adaptable to the needs of each facility. The Sharp team also sought to standardize user competencies, training, and future equipment acquisition.

The Results

• ECG interpretation accuracy increased from 85% to more than 99%

• Turnaround times decreased from an average of 15 hours to less than 5 hours

• Cost and time savings of a software-only solution with consistent 24/7 availability and support

• Data to help meet quality and compliance objectives

"With a fully integrated MUSE system, Sharp now has a strong foundation to build on for future cardiac expansion at our hospitals and clinics," Fine says. "Having a centralized server maintained by Sharp's IT specialists reduces downtime and allows a higher level of security to ensure HIPAA compliance."

With MUSE, a cardiologist can electronically view the current record while comparing it with the previous record, aiding in a more fully informed diagnosis. Since MUSE is available anywhere throughout Sharp's intranet system, authorized staff and physicians can quickly access all ECG records. Cardiologists with overreading privileges at Sharp Grossmont Hospital recently piloted this option through Sharp's secure portal to ensure ECG results are posted to the EMR within 5 hours. It was so successful that the Sharp Chula Vista facility soon followed suit and all facilities should have physicians reading online within a year.
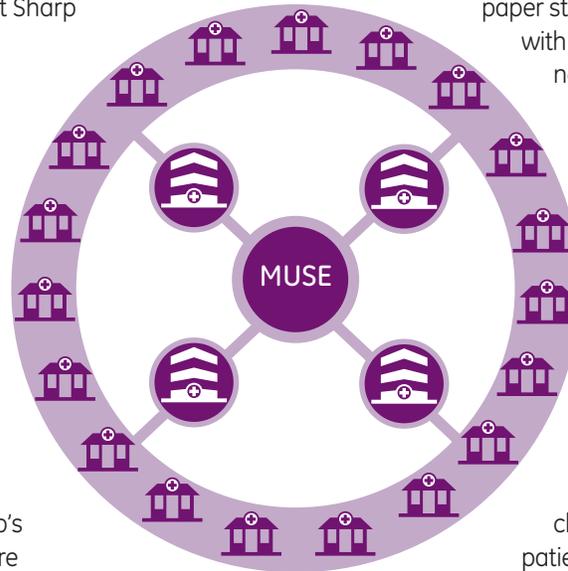
Four hospitals and approximately 19 clinics are currently integrated into Sharp's MUSE system, performing more than 13,000 ECGs each month. "Having a comprehensive, customizable, and easily accessible system gives us the ability to correlate care when patients are seen at other sites," Fine says. "Furthermore, as one of the busiest STEMI centers in California, the technology has made it easier for our Grossmont emergency department to gather and review data and expedite Cath Lab treatment to an average of 50 patients per month with STEMI."

The Sharp team also has gained administrative efficiencies and cost benefits with the new system. MUSE helped eliminate the need for on-site paper storage and the time associated with managing those records. The new system also requires less time to complete, record, and correct billing, streamlining the patient charge process.

Sharp HealthCare supports the notion that pairing a solid technology solution with the right process and workflow changes delivers significant results. In this case, the positive impact is being felt by administration, clinicians, and, ultimately, the patients and communities served.

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