Resolution

Information Release www.carestream.com Issue 2, 2014

Keeping up with technology – how Carestream stays at the forefront of innovation

Living in the thriving technological and very mobile world that we do, it's no surprise that patients want access to their medical records at the push of a button. To keep up with customer demands, Carestream implemented a number of technologies to improve communication between patients and their healthcare providers, and enhance productivity for radiologists. These technologies include the MyVue Patient Portal, CARESTREAM Vue Motion and the DRX-Revolution.

MyVue Patient Portal

Carestream's MyVue is a secure portal that allows patients to play an integral role in their medical care by providing them secure access to view and share their MRIs, PET scans, X-rays, mammograms and other medical images off of iPads or computers. Within the portal, patients have the ability to share images with their primary care physician, specialists or other radiologists, enabling collaborative workflow and empowering patients to control and manage their own health records.

According to a recent study, 60% of patients said they would like to access their medical records and be able to connect with their physicians electronically. Carestream's MyVue Patient Portal provides benefits to both the patient and the physician using it. With MyVue, the patient receives better access and care from their healthcare providers and in return they take a more invested interest in their own health by becoming more informed. Physicians can access patient data, imaging exams and radiology reports to provide consultations or subspecialty readings from virtually any location and in return, they see an increase in cost savings, productivity, and overall facility efficiency.

Vue Motion

Vue Motion is a zero-footprint vendor-neutral image viewer that uses a web browser to provide easy access to imaging data and patient information by onsite or remote clinicians. Referring physicians and clinicians need real-time, on-demand access to imaging results and patient data to provide more responsive patient care and Vue Motion allows them to do just that. With FDA clearance for mobile iPad use, users can be connected virtually anywhere.

DRX-Revolution

Mobility is a radiologic technologist's best friend. Before mobile X-ray systems, such as the DRX-Revolution, technologists had to lug around bulky, heavy machines and cassettes from patients' rooms and develop the images in another. The DRX-Revolution is truly an X-ray room on wheels. It provides high quality images within minutes and maneuvers easily through hallways and around bedside monitors thanks to the industry's first fully automatic collapsible column.

In August, Carestream announced its partnership with Johns Hopkins University and the Buffalo Bills to aid in the development of advanced medical imaging technology designed to help with earlier detection and monitoring of traumatic brain injuries. The DRX-Revolution provides instant access to X-ray images to help medical staff and athletic trainers determine whether a player can return to a game or a practice session, or if further treatment is necessary. This partnership provides Carestream the ability to apply its expertise and improve the lives of athletes and our community members. Customers are the beginning and end of everything we do here at Carestream and this is a prime example of how literally we take that promise. It's only a matter of time before the next technological craze hits the medical imaging world but rest assured Carestream will be ahead of the game.

Worldwide shipments of Carestream's digital DRX x-ray detectors surpass 9,000 units

Carestream Health has shipped more than 9,000 DRX detectors since launching the CARESTREAM DRX-1, a revolutionary wireless X-ray detector that quickly and affordably retrofits existing X-ray rooms or portable diagnostic imaging systems from CR to DR technology, or powers new DR rooms and mobile systems. Carestream DRX systems and detectors are used in surgical suites, ER/ICU areas and radiology departments - as well as clinics, imaging centers, nursing homes and field military hospitals.

These detectors deliver high-quality, affordable digital X-ray images in about five seconds. "Our innovative family of wireless DRX detectors, imaging systems and specialized software delivers excellent image quality while enabling healthcare providers to improve productivity and control costs," said Diana L. Nole, President, Digital Medical Solutions, Carestream.

The company's DRX systems help streamline workflow and improve patient care in both room and mobile environments. Carestream's DRX-based portfolio includes: CARESTREAM DRX-Revolution Mobile X-ray Systems, CARESTREAM DRX-1 Systems, CARESTREAM DRX-Mobile Retrofit Kits, CARESTREAM DRX-Evolution Systems, CARESTREAM DRX-Transportable Systems, CARESTREAM DRX-Ascend Systems, and the Q-Rad-Digital DRX-Series from Quantum Medical Imaging that is sold through the company's large dealer network in the United States and Canada. Quantum Medical Imaging is a division of Carestream.

In addition to the DRX-1 detector, the DRX portfolio also includes the CARESTREAM DRX-1C that utilizes cesium iodide technology and offers excellent image quality and improved DQE (detective quantum efficiency). The DRX-1C detector can be used to treat patients in trauma, orthopaedic and other clinical environments. Carestream's newest cesium-iodide-based detector, the CARESTREAM DRX 2530C, fits into pediatric incubator trays and is also used for orthopaedic and extremity imaging. The small-format DRX 2530C detector is intended for use with DRX-Revolution systems or DRX-Mobile Retrofit Kits for mobile imaging of neonatal and pediatric patients. It also can be used with DRX-Evolution and DRX-Ascend systems, as well as DRX-1 room retrofit systems, for orthopaedic applications and other tabletop exams that can benefit from a smaller detector.

Patient care in ED, ICU, pediatric ICU and other environments can be enhanced with advanced Carestream software that uses a single exposure to produce a companion image with algorithms designed to accentuate specific devices or conditions. For example, the companion image can produce a clear view of tubes and PICC lines, display free air in the chest cavity, or suppress the appearance of posterior ribs and clavicles to deliver a better view of soft tissue in the chest. Use of this software can help physicians deliver a higher level of patient care while simultaneously reducing the need for additional exposures.

To maximize utilization and flexibility, Carestream's DRX detectors can easily be moved to any DRX room or mobile DRX system—a feature referred to as the "X-Factor."

Carestream's new motor assist features for fully automated DRX-Evolution systems can help minimize operator fatigue

Carestream has added a Motor Assist feature to its fully automated CARESTREAM DRX-Evolution DR Room that allows operators to manually move the overhead tube with assistance from the system's motors. This capability is now shipping as a standard feature with all new orders for fully automated DRX-Evolution systems worldwide.

"There are many situations where technologists need to manually move the overhead tube into position for an X-ray exam. This new feature activates the motors to help provide power during tube positioning that can help reduce technologist fatigue," said Helen Titus, Carestream's Marketing Director of X-ray Solutions. "This feature provides smooth acceleration, deceleration and braking—all under the control of the operator."

A three-tiered level of motor assistance is set by the operator—from no assistance to low or high assistance. Titus notes that this feature is another example of Carestream's leadership in providing optimized performance and flexibility for its DRX-Evolution platform.

Field upgrades will be available for fully automatic DRX-Evolution systems that are already installed.

DRX-Evolution platform offers modular components

The CARESTREAM DRX-Evolution is a versatile digital radiography system that can perform a wide range of general radiographic exams with remarkable convenience, productivity and patient comfort. The DRX-Evolution platform offers modular components and healthcare providers can choose from three configurations: Fully Automated, Hybrid and Standard-Q.

The DRX-Evolution platform supports a choice of three DRX detectors, including two cesium iodide detectors (35 x 43 cm and 25 x 30 cm) for high-quality imaging. For maximum productivity, the DRX-Evolution can be configured with a detector in the wall stand and a second detector that is used for table Bucky and tabletop exams. Carestream's X-Factor design enables each DRX detector to work with all other DRX systems within a provider's environment.

MSC Cruises benefit from collaborative agreement between Carestream Health and Italy's Gaslini Institute

MSC Cruises has become the first cruise line to offer a 24/7, multilingual pediatric telemedicine service on board its entire fleet thanks to an agreement with the renowned Instituto Giannina Gaslini Children's Hospital in Genoa, Italy.

As part of this collaborative effort, Carestream will be providing a cloud-based teleconsultation portal to enable the Institute to deliver remote diagnosis, second opinions from specialists, patient monitoring and referrals wherever needed at any time.

The cruise line will use the Carestream portal across its fleet to enhance on-board medical response and deliver diagnosis and therapeutic functions previously only possible on land. The link works via satellite communications and will be available on all MSC cruise itineraries anywhere in the world.

"MSC Cruises is a family-owned company and we strongly believe in caring for the health and safety of our guests on board, with particular attention to younger travelers who can require specialized treatment that is different from other age groups," said Gianni Onorato, CEO of MSC Cruises. "We're really excited about this collaboration, which is particularly important to our family cruises throughout the world."

Based on Carestream's Vue for Vendor Neutral Archive (VNA) and Vue Motion viewer, the teleconsultation portal will enable the Institute to capture and view different file formats using a zero-footprint platform that does not require local software installation.

"The expertise of our specialists is being made available beyond the walls of the Gaslini," said Paolo Petralia, the Director General of the Gaslini Institute. "This enables doctors on the ship to confirm their diagnoses and treatments using a cutting-edge system of remote image and data transmission. This reaffirms the Gaslini Institute's commitment to offer the best care everywhere while developing the most advanced and efficient means of information technology."

The process of teleconsultation, from request to final response, is managed through Carestream's Cloud-Based Services. The applicant connects to the secure web portal and once logged in, can enter their request enclosing relevant diagnostic images, reports, videos or any other multi-media documentation. This intuitive portal does not require support on site and is easy to learn, which facilitates quick adoption by the staff on board. The medical specialist at the Gaslini Institute automatically receives an email notification and connects to the portal to view the request and provide medical advice. The applicant is then notified of a response via email, and can view and download the response by accessing the web site.

"From the request for consultation to the generation of the opinion, the process operates entirely online, respecting the highest security standards," said Fabio Tigani, Carestream's Business Development Manager for IT, Southern Europe. "Teleconsultation is an innovative area where we are developing rapid advances. Carestream technology is ready to support projects in this direction, as in the case of the Gaslini Institute. We have worked effectively with their medical and technical staff, providing both expertise and resources via our Technical and Innovation Centre based in Genoa."

Carestream ships 15,000th Vita CR System; has provided almost 30,000 Tabletop CR Systems to healthcare providers worldwide

Carestream's continuous innovation in CR technology has enabled thousands of facilities across the globe to convert to high-quality digital imaging with CARESTREAM Vita CR and Point-of-Care systems. The company announced it has shipped its 15,000th Vita CR System and has installed almost 30,000 tabletop CR systems since the company's first Point-of-Care system became available.

These easy to use and highly reliable tabletop systems make it possible for small to mid-size hospitals, clinics and practices to achieve the convenience and flexibility of excellent quality digital images at an affordable price. CARESTREAM Vita CR systems perform general radiology and long-length exams and are also suitable for military, mobile, veterinary and other diverse imaging environments. Carestream's Vita CR family includes the CARESTREAM Vita, CARESTREAM Vita LE, and CARESTREAM Vita XE CR Systems. Throughput ranges from 30 to 69 plates per hour for 14 x 17 inch cassettes.

"Our portfolio of CR systems enables imaging services providers to expand their workflow and capabilities by migrating from film to CR systems and then to our family of DR systems that produce digital images in seconds," said Heidi McIntosh, Carestream's Marketing Manager for Global X-ray Solutions. "We have designed our imaging solutions with a modular approach that is right for today and ready for tomorrow."

Carestream's Image Suite software allows patients to be registered on-site or remotely using a Web-based interface, and each X-ray system's touch screen allows users to quickly and easily select desired body parts and views to speed the imaging process. Technique information can be acquired automatically, eliminating the need for manual entry and the possibility of inconsistent X-ray exposures among different users.

Carestream software also allows images to be enhanced using slide bars on the screen to adjust brightness, contrast or detail. Specialized measurement tools provide diagnostic information for chiropractic, orthopedic or mammography imaging. Imaging providers can use automatic or manual stitching to paste individual images together to create the long-length view that is desired. Radiology reports can be generated on multiple workstations throughout a facility and optional software allows facilities to manage and view images from CT, MR and ultrasound imaging systems.

Carestream Vue PACS workstation's advanced measurement features, Native Reporting shine at ISCT workstation face-off

Carestream showcased the ability of its CARESTREAM Vue PACS workstation to support streamlined reading, processing and reporting of imaging studies from multiple modalities at the "Workstation Face-Off," which is part of the annual International Symposium on Multidetector-Row CT. The event was held June 11 in San Francisco. It was hosted by the International Society of Computed Tomography (ISCT).

"Each year this event pushes the envelope by providing more difficult cases that must be diagnosed and reported in a very tight time frame," said Cristine Kao, Carestream's Global Marketing Director for Healthcare Solutions. "This challenge spotlights Carestream's ongoing commitment to develop innovative reading and reporting capabilities as well as new ways to exchange information with clinical users and patients. This elevates the value of radiology for the enterprise and delivers clinical insights that can be shared with all caregivers."

Carestream continues to be the only supplier that can use a PACS workstation to complete all the cases at the annual Workstation Face-Off. "Creating the report at the PACS workstation while automatically inserting analysis and measurements enables enhanced accuracy and time savings for radiologists who use these tools regularly across the globe," said Dr. Menashe Benjamin, Carestream's Vice President of Healthcare Information Solutions.

This year's cases included: following a lesion in the abdominal wall across four time points based on two PET-CT and two CT studies; segmenting two lesions in the liver and segmenting the whole liver into nine segments according to the Bismuth classification; providing a set of measurements from a CT scan to plan a transcatheter aortic valve replacement; and highlighting multiple rib fractures of a man severely injured in a motor vehicle accident.

Radiologist Michalle Soudak, M.D., Director of Pediatric Imaging at Safra Children's Hospital in Israel, presented the cases for Carestream at the event.

"Carestream's integrated PACS reporting automatically inserts measurements into the report, and advanced bookmarking allows me to quickly record my findings," said Dr. Soudack. "This process simplifies navigation between measurements over multiple studies so I can easily create comparisons. It also expedites reporting of longitudinal studies and can help improve diagnostic accuracy."

"With our Vue PACS workstation and advanced tools, each measurement is hyperlinked to the relevant image to simplify the process of verification. Integrated PACS reporting can expedite the generation of quantitative reports while simultaneously helping to reduce errors," said Dr. Benjamin.

Editor's Note:
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