

A Sectra reference site

Solis Women's Health

Solis Women's Health is a network of independent breast imaging centers whose unified purpose is to deliver patient-focused diagnostic imaging services to promote breast health. Six of the centers of this Austin, Texas based corporation are clustered in the Dallas-Fort Worth metroplex. The seventh, and the most recent acquisition, is located in Greensboro, North Carolina. Collectively, Solis' breast centers currently perform more than 90,000 mammograms in a year, and is expected to grow to over 200,000.

At a time when an increasing number of U.S. hospitals and imaging centers are terminating mammography services, Solis Women's Health was established in 2006 with the objective of acquiring women's imaging facilities and equipping them with the newest imaging and information system technology. By combining the expertise of dedicated mammographers with the most innovative digital imaging modalities, patient information systems, and PACS, Solis Women's Health intends to provide mammography screening and related diagnostic breast imaging services of exceptional quality in financially profitable, specialized centers located throughout the United States.

"Mammography screening should be a process that is quick, efficient, affordable and comfortable for a woman," Chief Executive Officer Brad Hummel explains. "You can't achieve this unless a facility has digital acquisition, electronic information management, and the ability to rapidly access this information where ever it is needed."

The challenge

Solis selected Sectra to provide a fully integrated enterprise RIS/PACS and help it achieve its objectives. Every imaging center will share a single, centralized Radiology Information System and a Sectra PACS designed specifically to optimize mammography workflow efficiency.

"Solis requires maximum operational flexibility for our growing network of centers to be able to realize the full potential of our business strategy," Hummel says. "Sectra meets this requirement with an integrated RIS/PACS solution that is scalable, reliable, easy to implement, cost-effective and robust. We can pursue our business model with confidence, knowing that Sectra will maintain a superior level of performance as we expand."

By itself, digital acquisition of screening mammograms can be up to three times more efficient than traditional analog acquisition. Patients receiving screening mammograms can be efficiently scheduled in 10-15 minute intervals. And for women under the age of 50 and those with dense breasts, digital mammography has

the potential to increase the accuracy of microcalcification detection by up to 35 percent.

But without an integrated RIS/PACS, the workflow efficiencies required to cost-justify digital mammography cannot be achieved.

Conversion to digital breast imaging is not just a process of installing digital modalities. Centers need to know how diagnostic images are going to be displayed with prior film-based images, and images from other modalities, such as ultrasound and MRI. They need to determine how images will be integrated with electronic medical records, the radiology information system, scheduling and MQSA.

The strength of digital is the immediate accessibility of data wherever and whenever it is needed.

From the perspective of administrators and clinicians alike, the potential of digital to optimize workflow is its greatest strength. The corporate culture of Solis analyzes every aspect of its operations in terms of time, cost and quality performance.

"Exceptional efficiency – which requires high throughput – is needed for a dedicated breast center to flourish," Hummel states. "From the top down and the bottom up, we must pay attention to the minutes and seconds of our workflow processes."

The solution

Sectra Breast Imaging PACS was selected because it is designed to increase clinical productivity, and provide enhanced functionality through imperceptible integration with all types of modalities, information systems, and infrastructures. Its replicability within any imaging center environment and its expandability without performance compromise were other key factors.

Also of great importance to Solis is Sectra PACS' ability to transfer images from its mammography workstation to a physician or hospital using a different vendor's PACS or diagnostic workstation. "This capability facilitates rapid transfer of images to other specialists, such as surgeons and oncologists, or to other radiology facilities where breast treatment is provided," said Bonnie Lankford, Solis' Chief Operating Officer.

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Solis needed Sectra to design a smooth conversion for each imaging center. The implementation needed to minimize disruption, facilitate rapid adaptation by staff and clinicians, and not shut down clinical operations.

The first installation for digital mammography and PACS was at a new center being opened in January 2007 at the Denton Regional Medical Center. Although a RIS was not yet in place, this new facility allowed Solis and Sectra to refine workflow requirements and protocols with the newly installed PACS.

“We wanted to implement the RIS first, and let everyone get used to working with a RIS before replacing our analog systems with digital and installing a PACS,” Lankford explained. “Planning for the infrastructure for the RIS and PACS was started in February for all our centers. The database for the RIS was built in April. We launched the RIS with integrated speech recognition at our Denton and Central Plano centers in May. We planned the RIS implementation for a slow but steady rollout, and this strategy worked very well for us.”

Sectra coordinated all activities of all the vendors, serving as “general contractor”. From the outset, a weekly conference call with all participants was held. The Central Plano center went live with full digital conversion to digital mammography and PACS in early June. Conversion and implementation took place over a three week period, with one procedure room being shut down at a time. Super-users, technologists and radiologists were trained off site, so that they could learn to use the workstations in a very controlled environment. Applications specialists for both the digital mammography devices and PACS were on site when the center went live, and workload was reduced by 50% for the first few days.

Workflow refinements were made, and conversion of the next center would begin. As of August 31, 2007, four of Solis' seven centers have been activated and remaining installations will be completed by September 30, 2007.

The results

“Having everything at our fingertips is making a huge difference,” Lankford commented. The technologists can electronically signal the radiologists when they want an image reviewed, and the features of the Sectra mammography workstation facilitate this. The radiologists are becoming proficient with the use of the diagnostic workstations. Worklists are configured so that radiologists read either diagnostic or screening mammograms.

This capability is increasing their productivity. With the addition of speech recognition systems and the option of self-editing, transcription time has decreased already by an average of 30%. Each imaging center has a Workflow Information Service Engine. WISE is a workflow manager that handles the database, and keeps track of patients and examination information as well as the location of images. Two days prior to a scheduled appointment, films from prior exams are digitized. An Image Server, sized to store two years of exams on line, is at each location. Solis utilizes an offsite facility in Allen, TX specializing in secure data storage as its central archive.

Every center can access the records and images of all Solis patients. Solis plans include centralized reading and workload balancing once all centers are fully PACS deployed. It also is offering on-line access to physicians, particularly to surgeons, who are receptive to the idea of immediate access to the diagnostic imaging electronic files of their patients.

“Sectra's breast imaging PACS platform will allow us to continue to implement our business model,” Lankford said. “The benefits of PACS are really starting to work for us.”

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