

Connectivity Saves Lives

Summer 2007

Improving Quality and Efficiency of Care: Valley Health in northwestern Virginia has improved the quality and efficiency of cardiac care by integrating its Quinton® diagnostic cardiology devices at three separate hospitals with Pyramis®, the flagship data management HeartCentrix® product from Cardiac Science for the hospital market, for cardiac data management, central admission, order, and billing systems.

VALLEY HEALTH CONSISTS OF the 411-bed Winchester Medical Center in Winchester, Virginia, where all of the system's cardiac surgeries, interventional and other catheterization procedures are performed; the 196-bed Warren Memorial Hospital in Front Royal; and a 25-bed critical access hospital, Shenandoah Memorial Hospital, in Woodstock. Winchester Medical Center alone performs approximately 43,000 ECGs every year, as well as about 500 open heart surgeries. In 2006, Winchester performed 4,500 cardiac catheterization procedures and 1,600 interventional procedures.

In 2004, Valley Health sought to tie all of its facilities into a central data management system. It installed Pyramis in 2005, connecting its Quinton ECG, Holter, and stress devices with its hospital information system, improving the efficiency of its cardiology team and the quality of patient care across its network of facilities.

In 2006 Hospitals and Health Systems magazine named Valley Health one of the 100 Most Wired Hospitals in the United States, and Healthgrades conferred its Distinguished Hospital Award for Patient Safety. ■

CONNECTIVITY SAVES LIVES

"A patient returned his Holter monitor to our critical access hospital and the staff downloaded the data into Pyramis right away," began Cindy Guerin, Valley Health's cardiovascular system administrator. "At Winchester Medical Center, nearly 35 miles away, we were able to view the data and detect a significant abnormality before the

patient was discharged. We had the patient transferred to Winchester immediately and implanted a pacemaker within hours, very likely saving the patient's life. This is the value of advanced connectivity."

Pyramis has also played a critical role in the reduction of Valley Health's "door to balloon time," an important measure of quality and efficient care.

"With wireless connectivity to Pyramis on all of our ECG carts, a patient who presents with symptoms of heart disease can walk into any of our three emergency departments and have his or her ECG data flow seamlessly into our centralized data management system in Winchester," explained Sonya Gregg, Corporate Director of Non-Invasive Cardiovascular Services. "Then physicians interpret the data in real time. So if an emergency intervention is needed, the surgery suite or Cardiac Cath Lab at Winchester Medical Center can be set up while the patient is en route, which eliminates needless down time for the patient and speeds the delivery of a potentially life saving therapy."

WHY PYRAMIS?

"We had installed our previous ECG data system in 1991 and it badly needed an upgrade," explained Ms. Gregg. "If a patient had an ECG at another site, we were still faxing those reports to Winchester; faxes would get lost and poor fax quality made it less than optimal for physicians to interpret the ECG."

Valley Health looked at several vendors over the course of a year.

“We wanted to upgrade the central data management system but we also wanted it to tie all of our devices at all three facilities together,” said Ms. Gregg. “If we want to deliver the same quality of care to patients regardless of which facility they visit, the medical staff at each facility needs access to all of the pertinent records, regardless of where the data was collected.

“Because our ECG carts need to move around our facilities, wireless capability was very important,” she continued. “Our physicians needed to have access to patient data online, and to interpret, as well as sign, the ECGs electronically. And all of our historical ECG data had to be migrated to the new system.”

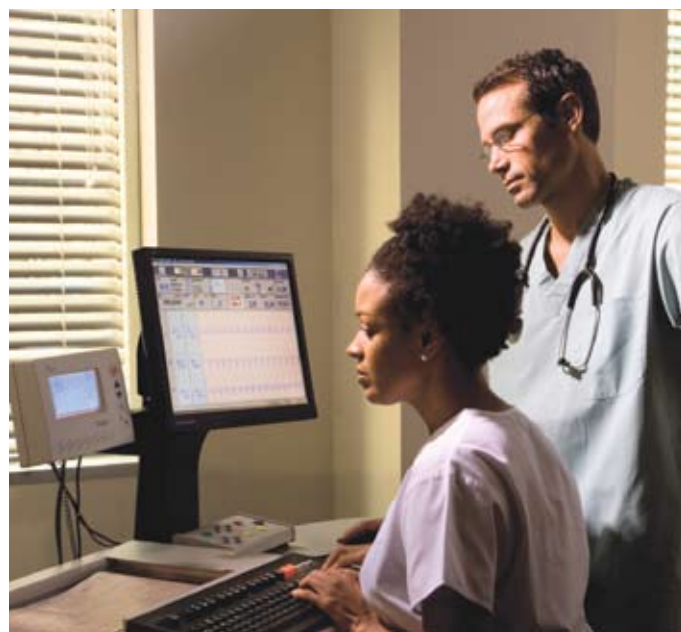
Pyramis satisfied all of these requirements. Upon installation it worked seamlessly with Valley Health’s HL7 interface, which ties its Quinton Eclipse™ Premier ECGs, Burdick® Vision™ Premier Holter, and Quinton Q-Stress® stress systems into the orders system, admissions, billing,

and the physician portal. It accepted all of the previous system’s historical data, and tagged each record to identify its facility of origin.

So now when a patient’s information is gathered at admission, it automatically feeds into Pyramis as needed. When a doctor orders an ECG or stress test, the order system pings Pyramis, which populates the device with the patient’s admission information. The data from the test flows back into to ECG data management, which the cardiologist can view online, and informs the accounting system, which adds the test to the patient’s bill.

CARDIAC SCIENCE STANDS BY ITS PRODUCT

“Cardiac Science’s products are excellent, and the support and service they provide us is outstanding,” said Ms. Guerin. “Cardiac Science stands by its product and is true to its word. If we have a problem with the wireless units on our ECG carts or the HL7 interface, they don’t stop until they find the answer. I can always make immediate contact with our support rep and he can usually identify and correct the problem while I am on the phone or within the hour otherwise.” ■



The Quinton Q-Stress cardiac stress system.

From discovery to recovery, Cardiac Science provides non-invasive cardiology products and services.

Cardiac Science Corporation • 3303 Monte Villa Parkway, Bothell, WA 98021 USA • 425.402.2000 • US toll-free 800.426.0337 • Fax: 425.402.2001 • info@cardiacscience.com

Orders and Customer Care (US and International) • Fax: 425.402.2001 • care@cardiacscience.com

Technical Support • (US) Fax: 425.402.2022 • technicalsupport@cardiacscience.com • http://websupport.cardiacscience.com/webchat/ • (International) internationalsupport@cardiacscience.com

Cardiac Science International A/S • Kirke Vaerloesevej 14, DK-3500 Vaerloese, Denmark • +45.4438.0500 • Fax: +45.4438.0501 • international@cardiacscience.com

United Kingdom • The Manse, 39 Northenden Road, Sale, Manchester, M33 2DH, United Kingdom • +44.161.926.0000 • uk@cardiacscience.com

France • Parc de la Duranne, 565, Rue René Descartes, F-13857 Aix-en-Provence Cedex 3, France • +33.4.88.19.92.92 • france@cardiacscience.com

Central Europe (D, A, CH) • Oskar-Schindler-Strasse 3, D-50769 Köln, Germany • +49.2132.93.5750 • centraleurope@cardiacscience.com

China • 6/F South Building, 829, Yi Shan Road, Shanghai 200233, China • +86.21.6495.9121 • china@cardiacscience.com

Cardiac Science, the Shielded Heart logo, Burdick, Quinton, HeartCentrix, Pyramis, Q-Stress, Eclipse, and Vision are trademarks of Cardiac Science Corporation. Copyright © 2008 Cardiac Science Corporation. All Rights Reserved. Authorized EU representative • MDSS GmbH, Schiffgraben 41, D-30175 Hannover, Germany