



# Combining talent with innovative technology

## Carson Tahoe benefits from Xper Information Management

### Who/where

Carson Tahoe Regional Medical Center  
Carson City, Nevada, USA

### Challenge

Carson Tahoe Regional Medical Center, which opened in December 2005, is a state-of-the-art facility with a burgeoning cardiac patient population. The cath lab staff and physicians were burdened with cumbersome hemodynamic monitoring and charting technology that impeded seamless workflow.

### Solution

With Xper Information Management, the cath lab workflow is faster because the physiomonitring software is intuitive and the data is accurate and reliable. Physicians and cath lab clinicians are benefiting from the ability to easily assimilate information quickly and precisely. Plus, with software that's user-friendly and easy-to-learn, physicians, nurse and technologists are able to focus on patients and cardiovascular care instead of the software.

When Carson Tahoe Regional Medical Center opened the doors of its new, 146-bed, \$132-million hospital in December 2005, the hospital management and staff shared one clear goal: to evolve the hospital's reputation from a highly respected community hospital in Carson City, Nevada to a national, state-of-the-art healthcare leader. To reach this aspiration, one of the primary clinical focuses was cardiovascular care, and one vendor was selected for the hospital's busy cardiac cath lab – Philips Medical Systems.

### A vision for advancing cardiac care

As Director of Cardiac, Critical Care and Imaging Services Annette Patellos, RN, BS, ED, MA, explained, "Our relationship with Philips started several years before our new hospital opened. Over the years, our relationship with Philips has blossomed because the company consistently delivers cutting-edge technology for all the cardiac modalities. The service is good, and the Philips employees have taken the time to familiarize themselves with our facilities, as well as our current and future technology needs."



Vice President of Medical Affairs and practicing Cardiologist  
Anthony C. Field, MD

"We had a vision for what our cardiology care could be."

In fact, Philips is equipping Carson Tahoe Regional Medical Center with tomorrow's technology today. In July 2007, Carson Tahoe's status with Philips and within the larger cardiology industry rose to new heights when the facility became

# PHILIPS

Cath Lab Technologist Ted Wilkens, RCIS, likes Xper Information Management's intuitive interface and navigation, as well as the accuracy of the data it captures.



the very first hospital in the world to implement the new Philips Xper Information Management cardiovascular workflow solution.

**“Xper Information Management uniquely positions us against competitor hospitals.”**

According to Manager of Cardiac and Imaging Services Scott Cochran, BS, ARRT, RCIS, the cardiology leadership team recognized the potential. “We realized that serving as the first installation site for Xper Information Management would raise our profile and give us a unique way to market ourselves to patients, staff and physicians,” stated Cochran. “When we moved to the new hospital, we had a vision for what our cardiology care could be, and we knew Philips could help us get there.”

This vision encompassed open-heart surgery, as well as advanced invasive and non-invasive cardiac diagnostic tools, interventions and therapies. To transform this vision into reality, the hospital leadership, including Patellos and Cochran, sought out the best technologies and recruited staff with “large center experience” to augment the rich local talent. As a result, Carson Tahoe has raised the regional standards for quality cardiac care.

“Marrying our talent and experience with the latest, most innovative technologies has given us the opportunity to become a major player,” said Cochran. “The Xper Information Management technology further strengthens this advantage and uniquely positions us against competitor hospitals.”

Director of Cardiac, Critical Care and Imaging Services Annette Patellos, RN, BS, ED, MA



### **An innovation for integrating the cardiac cath lab workflow**

The Xper Information Management family of products ([www.medical.philips.com/XperIM](http://www.medical.philips.com/XperIM)) is designed to simplify cath lab workflow, strengthen cardiology information management, and give clinicians more time to focus on patients.

The first phase of the installation at Carson Tahoe Regional Medical Center encompassed the installation of Xper Physiomonitring 5 in the hospital's two cath labs and one vascular lab. This software encompasses hemodynamic monitoring and charting. Integration between Xper Information Management's monitoring, charting and reporting optimizes patient care, while efficiently managing the administrative functions of the cath lab department.

**“We plan to incorporate Xper Clinical Reporting and Xper Lab Reporting in the upcoming year.”**

On the IT side, Carson Tahoe embraced Xper Connect, which is the interface software that enables Xper Information Management to exchange data with other software vendors that the hospital uses. Currently Xper Connect is interfacing with the patient admissions database (ADT); other interfaces may be added in the future.

[www.medical.philips.com/XperIM](http://www.medical.philips.com/XperIM)



Recently, the hospital began using Xper Inventory Coordinator. “We plan to Incorporate Xper Clinical Reporting and Xper Lab Reporting in the upcoming year, and we’re also considering the scheduling solution Xper Flow Coordinator and the Xper Whiteboard Viewer,” said Cochran.

### An intuitive workflow experience

Many of the advantages of Xper Information Management were apparent before the technology was even installed. Cath Lab Technologist Ted Wilkens, RCIS, explained, “I attended training at the customer education center in Florida; it was a very positive experience. We worked with the Philips team to set up the fields and menus the way we wanted. Instead of being forced into the vendor’s format, we were able to customize it to our routine. They gave us the platform and we personalized it to our workflow. Plus, the system is so user-friendly that it makes it easy to arrange a ‘train-the-trainer’ process. It’s self-explanatory technology. You do one case and you instantly get how it works.”

Wilkens is quick to cite several specific user-friendly features, noting that he especially likes the color-coded keyboard featuring a variety of shortcut keys for monitoring and charting functions. “I liked the keyboard as soon as I saw it,” he said. “I’m a keyboard person, but if you’re a mouse person, you can use the mouse instead. And when you’re recording inventory, you have the option of the keyboard, mouse

or wireless barcode scanner. Of course, I’m the hemodynamic guy, so first and foremost, I have been enormously impressed with the hemodynamic results. I like how the system does calculations and algorithms.”

“Ultimately, I think the biggest pro of the new technology is the intuitive style,” Wilkens concluded. “Previously, I spent a lot of time entering information; now I can concentrate on caring for my patients instead of the equipment.”

“I have been enormously impressed with the hemodynamic results.”

Cath Lab Technologist Gabe Tureson, ARRT, agreed, noting, “The system is user-friendly. It’s like it was invented by cath lab techs.”

This comment is not without merit, as the Melbourne, Florida-based Philips Interventional Patient Care team, which develops and supports Xper Information Management, employs a combination of former cath lab clinicians and information technology experts. This team is part of Philips’ April 2006 Witt Biomedical acquisition.

Cath lab technologists and nurses aren’t the only happy customers. Patellos observed that the physicians are fond of the procedure report, and they are looking forward to

moving away from dictation to Xper Clinical Reporting, which will be an important step towards achieving a larger, more substantial hospital goal: a fully integrated, hospitalwide electronic medical record system.

“The system is user-friendly. It’s like it was invented by cath lab techs.”

Vice President of Medical Affairs and practicing Cardiologist Anthony C. Field, MD, explained, “With Xper Information Management, things are much easier. Previously, I had trouble obtaining accurate, correct, reliable numbers. This system is so user-friendly and intuitive. For instance, right

heart caths are much easier. Everything flows effortlessly for us with the new software. It's easier for us to assimilate information."

Patellos was also quick to praise the new solution. "We're really happy with Xper Information Management because our staff is happy," she stated. "They tell us that it has expanded capabilities, making it easy to sample pressures and chambers. The system offers more menu options, and the menus are easy to use. Importing demographics and initially setting up the patient is much less time-consuming with the Xper Connect interface. As a result of these features, the cath lab workflow is more efficient."

**"Xper Information Management is instrumental in IT workflow."**

Dr. Field added, "I think Philips will receive a great response for this new solution. We love it. Ultimately, when it comes to technology, all I care about are the images and the numbers. They have to be easily accessible and accurate, and with Philips cath lab solutions, they are."

### **A cardiology IT solution to expand with the hospital**

Cochran and Patellos both noted that they have quickly realized that Xper Information Management is more than a clinical cath lab solution; it also offers a variety of IT advantages.

"From the IT perspective, Xper Information Management is instrumental in workflow," Patellos said. "The Philips team has also developed a collaborative relationship with our IT department. When you consider the IT advantages of Xper Information Management, we have the opportunity to be the regional medical leader with a new facility, exceptional staff and advanced information technology."

**"It's been an honor to be the world's first installation for Xper Information Management."**

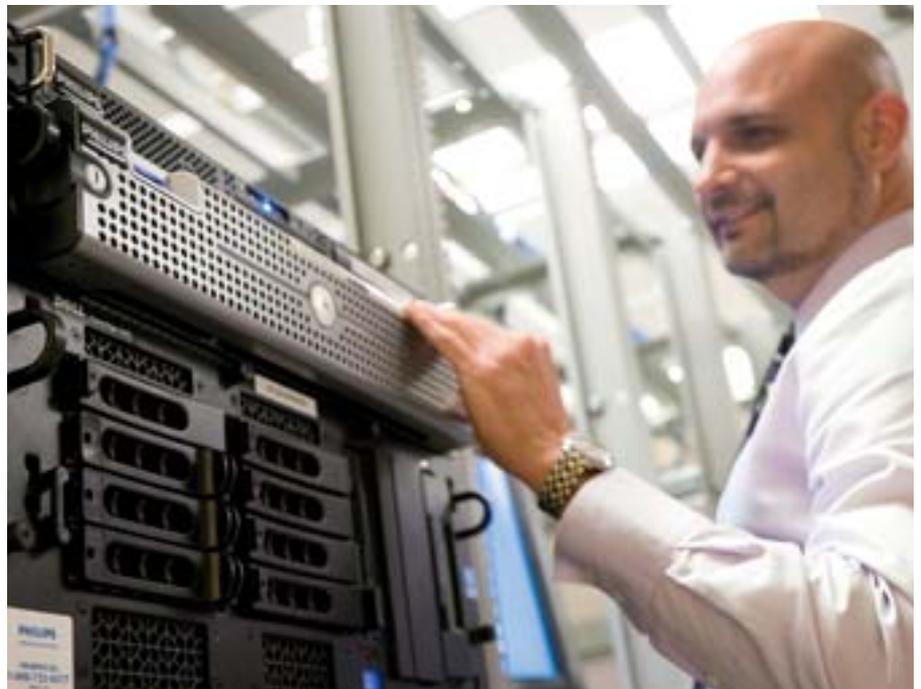
(Article continues on back page.)

Interim I.T. Director Magnus LeBlanc points out the Philips servers that are yielding IT workflow benefits for the hospital.

### **Partnering with Philips**

Carson Tahoe Regional Medical Center is maximizing the broad spectrum of Philips cardiovascular technology solutions, including:

- Philips Xper Information Management
- Philips CV X-Ray systems, including an Allura Xper FD10
- Philips Xcelera image management
- Philips Xcelera echo reporting
- Philips iE33 ultrasound
- Philips TraceMasterVue ECG Management Systems
- Philips Forte gamma camera system with JETStream acquisition
- Philips cardiac monitoring systems



## Carson Tahoe Regional Medical Center at a glance

- Mission: To enhance the health and well-being of the communities we serve.
- Location: Carson City, NV, USA
- New hospital opened: December 2005
- Hospital size: 352,000 square-foot state-of-the-art facility on a spacious 80-acre campus
- Number of employees: 1,227
- Number of board-certified physicians: 240
- Number of medical specialties: 35
- Number of beds: 146
- Number of private rooms: 138 rooms
- Primary market: 100,000 residents in the Carson City and Lake Tahoe region
- Secondary market: 150,000 additional residents stretching into rural Nevada and Eastern California
- Fastest-growing demographic: 55-80 year old residents (Many patients are retirees from California who are taking advantage of Nevada's low cost of living and no personal income tax.)



## Carson Tahoe cardiology snapshot

- Cath labs at new hospital opened: Late January 2006
- Number of dedicated cardiac cath labs: 2
- Number of dedicated vascular/cath labs: 1
- Number of cath lab staff (excluding management): 7
- Number of board-certified cardiologists: 9
- Number of cardiothoracic surgeons: 1
- 2006 open-heart surgeries: 152
- Projected 2006 interventions: 165
- Actual 2006 interventions: 290
- Home to Nevada's only certified Cardiac Rehabilitation Center
- "CardioOne" open-heart surgery program that allows for pre-surgery, recovery and post-surgery to take place in one room, with the cardiac care team accompanying the patient the entire time, which can decrease length of stay by one whole day

With the Xper Nurse Station's Physiomonitring 5 remote control capabilities, Cath Lab Nurse Carolyn Landolt, RN, documents data and samples waveforms in the procedure room.



### An opportunity to market healthcare innovation

While the hospital enjoys 75 percent penetration in its primary market, maintaining and growing its customer base in secondary and targeted markets, as well as attracting and retaining the best talent, are critical. Patellos recognizes that advanced technology plays a critical role in these objectives. Since Carson Tahoe opened the new hospital, added an open-heart program, and implemented Philips cardiovascular technologies, the hospital has seen a significant jump in its cardiology customer base.

In the first year at the new facility, the Carson Tahoe team performed 152 open-heart surgeries. Plus, Cochran had anticipated that the cath lab would perform 165 interventions, but as 2006

drew to a close, the team actually performed 290 interventions. With the added efficiencies of Xper Information Management and a growing customer base, the cath lab anticipates additional increases for 2007 and 2008.

*"Xper Information Management is definitely helping us to stay on the cutting edge of healthcare technology."*

According to Patellos, offering a full cardiac service line has made a huge difference in the community and the vision for the hospital. She explained, "There are other options in this community. We compete against larger

hospitals with bed sizes that give them clout. But we've established a reputation that if you want cutting-edge technology and advanced care, you travel to Carson Tahoe Regional Medical Center. It's very important for us to stay on the cutting edge of healthcare technology. After all, our physicians expect it and our customers demand it. Xper Information Management is definitely helping us to maintain that edge."

Cochran concluded, "It's been an honor to be the world's first installation for Xper Information Management and to have the unique opportunity to offer our patients the benefits of this innovative cath lab workflow solution."

For more information:  
[www.medical.philips.com/XperIM](http://www.medical.philips.com/XperIM)



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