

# Poudre Valley Health System

Full interoperability impacts patient care and clinician efficiency

“The Philips commitment to service was impressive . . . they provided on-site people for training and local people for service.”

*Dr. Gary Luckasen  
Cardiologist, Heart Center of the Rockies  
Poudre Valley Health System  
Loveland, Colorado*

## Thinking big for a big new hospital

When the management team at Poudre Valley Health System (PVHS) was engaged in building a new hospital while upgrading another, it recognized an important opportunity. By forging a strategic partnership with a single vendor such as Philips, they could create a state-of-the-art facility that allows imaging, monitoring, PACS, and the hospital EMR to work seamlessly together—enhancing patient care and workflow efficiency. While gaining access to the latest benefits in technology, workflow and interoperability, they could also leverage significant buying power through volume discounts.

The vision was a big one, with several strategic goals.

- Create interoperability between information systems, imaging information systems, and electronic medical records systems across multiple hospital facilities

- Interface the cath lab with imaging, cardiology PACS, and hemodynamics
- Interface PACS with EMR and all modalities at a single workstation
- Create patient monitoring interface so that patient could be seamlessly monitored from ER to OR to ICU

At the time, many of these integration goals had not been achieved anywhere—they were a promised but not-yet-delivered technology. Through a partnership with Philips, however, PVHS was able to achieve its vision.

## PVHC at a glance

Based in Fort Collins, Colorado, Poudre Valley Health System serves patients and families in northern Colorado, southern Wyoming, and western Nebraska with a full spectrum of medical care provided at several facilities, including the newly completed Medical Center of the Rockies (MCR), which specializes in cardiac and trauma care.

PVHC has 3,488 employees including 501 physicians. Its flagship Poudre Valley Hospital specializes in orthopedics, neuroscience, cancer, bariatric weight-loss surgery, and women and family services, and has developed one of the most sophisticated and highly used robotic assisted surgical suites in the country.



### Viewing all images from a single screen

Central to the PVHS vision was a universal cardiovascular system for image management, physician documentation, surgery and hemodynamics that would work as one system, from a single monitor, with a single interface. The interface connecting Philips iSite PACS multimodality image review, XperIM physiomonitring, and Xcelera cardiology information management system provided the interoperable single-system solution required.

With Philips iSite PACS, physicians can view images from all modalities at remote stations and provide immediate consultation, even when they are away from the hospital. Clinicians can view all images available for a patient from a single screen. Before Philips iSite PACS, a clinician had to open and close several different applications to view images from different modalities or different time periods.

Cardiology at PVHS gained significant efficiencies as well. "Xcelera cath and nuclear reporting makes it is easy to sit down at one station and pull up everything, do my reports, read echoes from anywhere," says cardiologist Dr. Gary Luckasen. "This makes my workflow so much better than moving around to different stations. It lets us knock out reports, decreasing our turnaround time for cardiogram reporting from eight hours to one. And the interface with the EMR lets me look at patient charts and studies from the same station. I can even look at monitoring or echoes."

With critically injured patients, continuous monitoring is a must, even as they are wheeled from ambulance to ER to OR to the ICU. Because all the monitoring systems are from Philips, cables connecting the monitors to the patient all work together and patients never have to be off-monitor as their locations change.

The web solution Philips provides means that ER physicians can view images at home before they go in, so they can plan ahead for interventions and treatment. And the connectivity between PACS and the EMR means their rounds go much faster, as all the information they need for a single patient is at their fingertips.

All told, the single-vendor solution provided by Philips included dozens of clinical systems, applications, and devices, including three CT systems, EP biplanes and Allura Xper X-ray systems, two Achieva MRI systems, five BP Pulsera surgery systems, multiple patient monitors, and a SKYLIGHT nuclear medicine system – in addition to the iSite PACS and Xcelera solutions.

### Patient care results

While budgetary and efficiency goals were met by the Philips alliance, the most important metric of success is patient care, both in terms of outcomes and customer service satisfaction. On both fronts, the alliance has been a success.

Because clinicians now have one environment to learn, they can focus on care, not information management. "There's a fallacy in the IS community that what we do is provide technology," says Russ Branzell, PVHS chief information office. "But our real value is in removing IS complexity so that clinicians can spend more time in the care process. We don't throw more technology on the care providers, but give them the tools and processes to improve care and safety, at the point of care."

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