



# Advanced interventions, reduced capital outlay

## WHC benefits from Catalyst System Conversion

### Who/where

Washington Hospital Center is the largest private hospital in the nation's capitol. A member of MedStar Health, the not-for-profit Hospital Center is licensed for 926 beds. The Hospital Center occupies a 47-acre campus in NW Washington that it shares with three other medical facilities. In 2006, the Hospital Center's staff of 1,584 served 46,155 patients and 366,248 outpatients.

### Challenge

In keeping with its mission to deliver the highest quality healthcare, WHC needed to replace its older CV equipment with state-of-the-art equipment while also reducing capital outlay.

### Solution

WHC administrators looked to Philips Medical Systems to update many existing, image intensifier-based, Allura Cardiovascular X-ray systems to the latest Allura Xper Flat Detector Platform.

Xper Flat Detector Platform Upgrade helps Washington Hospital Center deliver enhanced level of patient care

Washington Hospital Center's (WHC) cardiac catheterization department is one of the nation's largest interventional facilities. With eleven invasive procedure rooms featuring the latest digital imaging equipment, WHC physicians perform thousands of cardiac catheterizations and other specialty procedures each year.

At WHC, patients are managed with the most technologically advanced diagnostic tests and treatments, including coronary and peripheral revascularization, angiogenesis, gene therapy and electrophysiology, including ablation, brachytherapy, pacemakers and more.

In keeping with its mission to deliver the highest quality healthcare, administrators looked to Philips Medical Systems when planning to replace their cardiovascular (CV) equipment.

"We had older labs in place and wanted the best state-of-the-art equipment available on the market," said Lowell F. Satler, M.D., Director of Interventional Cardiology.

"We've been working with Philips for years and they have an excellent track record. We looked at some competitor systems, but they could not beat the reliability and service we get from Philips. They are a leader in interventional imaging and they put together an extremely competitive package for us."

An important part of the overall proposal to WHC were Catalyst System Conversions, which allowed WHC to update many existing, image intensifier-based, Allura Cardiovascular X-ray systems to the latest Allura Xper Flat Detector Platform.



**Augusto D. Pichard, M.D., Director of  
Cardiac Catheterization Laboratory**

# PHILIPS



### Catalyst conversion delivers key benefits for administration

“In a competitive market, Philips state-of-the-art equipment is a real plus for us in being able to deliver a higher level of patient and physician satisfaction,” said Johanna Evans, Manager of WHC’s Cardiac Cath Lab. “Physicians demand the latest technology. Philips helps us deliver that, so we are able to attract and retain the best physicians. Improved image quality leads to improved patient care, which also has the potential to lead to greater physician retention since satisfaction with procedures brought about by better visualization of structures such as coronary arteries during procedures is improving patient care.”

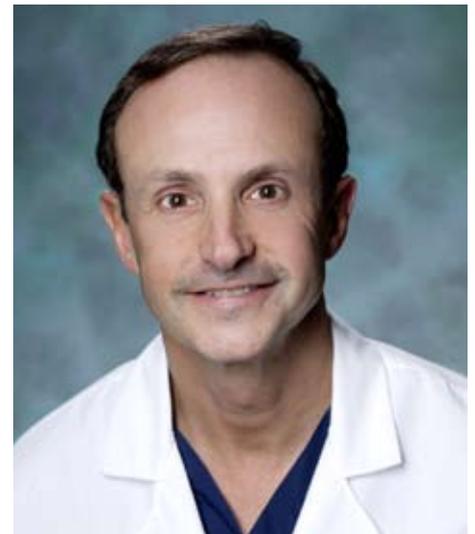
The converted labs operate side by side with brand-new Philips CV labs. Cost savings came in two forms. First, the equipment cost significantly less than new systems. Second, construction costs were minimized because the systems used the same infrastructure as the existing image intensifier systems.

According to Evans, there are several benefits to the converted lab. There is virtually no difference in operation or reliability between the converted lab and the new ones. The converted labs carry the same full warranty as the new ones. With an improved user interface and enhanced image quality, Evans notes that the Philips Allura Xper FD cath labs have shortened exam times. This helps WHC maintain lab schedules, reduce staff overtime, and lower radiation exposure for patients and staff.

### Xper Flat Detector Platform delivers host of clinical benefits

When selecting equipment last year, WHC took into account the need to deal with increasing numbers of challenging angioplasty cases involving larger and sicker patients. It was critical to consider these requirements in order to deliver the highest quality care to a broad range of patients. The enhanced image quality offered by Philips Allura Xper Flat Detector Platform is also improving both patient and physician satisfaction.

“Specific benefits have been image resolution improvements for faster, more accurate diagnoses, and a user-friendly system, which makes it easier to visualize for tests,” said Dr. Satler.



**Lowell F. Satler, M.D., Director of Interventional Cardiology**

“We looked at some competitor systems, but they could not beat the reliability and service we get from Philips.”

“With the enhanced image quality and versatility of the equipment, testing is much more effective now. We also have greater tableside control... more quantification and better organization of images.”

“With the enhanced image quality and versatility of the equipment, testing is much more effective now,” added Augusto D. Pichard, M.D., Director of WHC’s Cardiac Catheterization Laboratory. “We also have greater tableside control through the system’s features and options, giving us the ability to play with the images digitally since we now have more quantification and better organization of images.”

The Xper Platform benefits peripheral rooms as well. Some of the other rooms have converted to the larger field of view FD20 system.



“The new cath lab’s larger image screen enables us to see more of the body of the heart, making for clearer visualization for stents, catheterization and angioplasty and other procedures,” says Dr. Pichard.

Dr. Satler also cites the system’s larger fields of vision aids in performing more complex procedures. “In performing complex procedures such as percutaneous heart valves and stents, you need a larger field of vision since you are threading small balloons through arteries,” said Dr. Satler. “Philips larger flat plates make it easier to view structures for these more complex cases.”

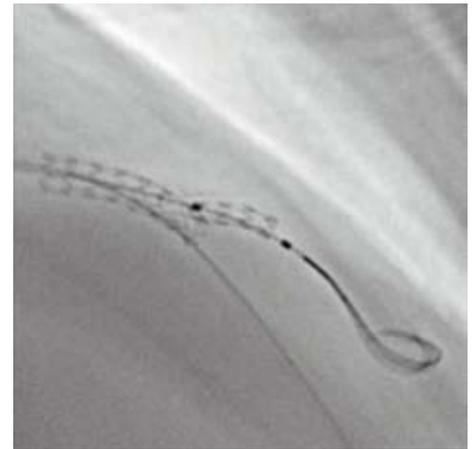
#### StentBoost enhances visualization for stent procedures

Philips advanced interventional tools were also a significant factor in the purchase decision. Assessing optimal stent deployment is a critical step in any implantation procedure, so Dr. Pichard notes the value of Philips unique StentBoost in enabling more accurate, successful positioning of stents and balloons.

“To examine areas of the coronary artery, you need clear visualization,” said Dr. Pichard. “StentBoost is invaluable for offering enhanced visualization so we can check stent dilatation and deployment, reposition the balloon for dilatation of underdeployed areas, tighten overlapping stents and maneuver stents as necessary—an improvement over what we had previously.”



Left coronary artery bifurcation stent contrast



Left coronary artery bifurcation stent without contrast, stent clearly visible

StentBoost’s real-time visualization is critical in ensuring successful placement and deployment of stents.

“Using StentBoost, we can clearly visualize structures and confirm in real-time that they are accurately placed and deployed,” added Dr. Satler. “StentBoost’s ability to view the stent and vessel in the same image aids us through more precise stent positioning and better assessment of deployment. StentBoost’s ability for optimal stent deployment can increase patient satisfaction by reducing the need for additional interventions.”

“StentBoost’s ability for optimal stent deployment can increase patient satisfaction by reducing the need for additional interventions.”



### 3D visualization tools

Rotational angiography has been around for a few years, and studies have shown it can reduce radiation dose and contrast significantly. However, quantitative tools to ensure the best angle for an intervention, without undue effort from the control room, haven't been available. The new Philips interventional workstation with 3D Coronary Angiography (Allura 3D-CA) allows WHC to validate the exact gantry position that will allow the physician to minimize foreshortening and eliminate branch overlap—all from tableside. In addition, Dr. Pichard plans to use CT TrueView software, also installed at WHC, to reduce X-ray dose and contrast use for patients who have already undergone coronary angiography on the hospital's Brilliance CT scanner.

### Optimistic about the future

In addition to the variety of clinical benefits physicians at WHC are now realizing, Dr. Satler sees being on Philips latest Xper platform as critical for future clinical needs.

"I see for future applications the ability to obtain images of adult heart structure as adult structural heart disease becomes more prevalent," said Dr. Satler. "In the future, the high-resolution flat plate and new tools from Philips will be beneficial in imaging adult heart structural disease among other applications."



© 2007 Koninklijke Philips Electronics N.V. All rights are reserved.

Philips Medical Systems Nederland B.V. reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication.

Philips Medical Systems is part of Royal Philips Electronics

Philips Medical Systems N.A.  
Bothell, Washington  
Tel: 888 647 4285  
www.medical.philips.com

Printed in USA  
BOT-07-02175 \* DEC 2007