Center for Heart & Vascular Health introduces advanced cardiac procedures

Wilmington, DE (July 21, 2004) – The Center for Heart & Vascular Health at Christiana Care has introduced several advanced cardiovascular and interventional radiology procedures and tests. Here’s a look at some of the new methods and technology that are now available.

Two new, state-of-the-art hand-held cardiac ultrasound machines are now available to clinicians through the Non-Invasive Cardiovascular Laboratory at Christiana Care’s Center for Heart & Vascular Health. According to lab Medical Director, Michael Pasquale, M.D., these devices are portable, laptop computer-size ultrasound machines used for cardiac examination to quickly obtain two dimensional ultrasound images, measure anatomic structures and access blood-flow patterns with Color Flow Doppler. They provide physicians at the patient’s bedside with a visual extension of their clinical evaluation and physical examination.

For example, physicians can get immediate feedback as to the cause or origin of heart murmurs that they hear and identify the etiology and the best course of therapy for patients with unstable vital signs. They can serially assess the effects of medical therapy on myocardial and valve function. These new tools are now available for clinicians to use wherever necessary.

In the past, when a coronary artery was 100 percent blocked, or totally occluded, a cardiovascular surgeon treated the disease with open heart surgery. But now, interventional cardiologists can perform a new, less invasive, catheter-based procedure, which in many cases helps patients with total blockages avoid open heart surgery.
“Total occlusion has been a major obstacle limiting our ability to do catheter-based procedures, such as angioplasty, atherectomy and stenting, because a 100 percent blockage completely stops the flow of contrast media, which prevents us from seeing the path forward for the guide wire used in catheterization,” explains James M. Ritter, M.D., who performed the first procedure using the new technology in May. “This increases the risk of damaging the blood vessel,” Ritter says.

Now new technology, called forward-looking guidance, enables Christiana Care interventional cardiologists to detect the wall of the blocked artery before the guide wire touches it. The same instrument also provides radio frequency (RF) ablation to burn through some concentrated plaque buildups that would traditionally require open heart surgery. These new technologies are not appropriate for every patient, and some blockages will still require surgery, especially those that are lengthy or situated in an angular or wavy part of the blood vessel.

The coronary Safe-Cross System™ was approved by the FDA this year. The combined use of the Safe-Cross System and drug-coated stents could dramatically change the way total occlusions are normally treated, with many more patients treated in the cath lab instead of the vast majority requiring open heart surgery, according to Ritter. “With uncoated stents, a substantial number of blockages still reoccur,” he says. “But with new, drug-coated stents now available, the frequency of restenosis decreases significantly.”

The Center for Heart & Vascular Health is grateful to the Junior Board of Christiana Care for its financial sponsorship of these new technologies.