The new St. Francis Hospital renovation and expansion features a hybrid OR, one of the most advanced cardiac operating suites in the world.

The hybrid OR is available for procedures that in the past have required two separate operating suites and two medical teams, such as cardiac stenting normally performed in a cath lab by interventional cardiologists and mitral valve surgery performed by cardiac surgeons. St. Francis Hospital’s hybrid OR features Siemens’ Zeego high-resolution 3-D CT imaging system, which syncs with X-ray mapping technology to provide images of a patient’s heart and vascular system in real time.

The hybrid OR is part of the Hospital’s new cardiac OR suite, which includes six operating rooms equipped with the latest technological tools and a post-anesthesia care unit.

“A hybrid operating room enables interventional cardiologists and cardiac surgeons to work together,” says Richard Shlofmitz, M.D., Chairman of Cardiology. “St. Francis Hospital is dedicated to staying on the leading edge of cardiac treatment and technology, and this has allowed us to do that.”

Recently, Rosann Manzitto, a 57-year-old dental hygienist, underwent a minimally invasive surgery to repair her heart’s mitral valve and received a cardiac stenting procedure to open up a blocked coronary artery. She was able to have both procedures done in the hybrid OR.

The hybrid OR can help save time and eliminate the need to transport patients.

“This is a significant step forward for our cardiothoracic and vascular surgery program,” says Newell Robinson, M.D., Chairman of Cardiothoracic and Vascular Surgery. “We now have the most accurate imaging of the heart that advanced technology can provide during surgery, as well as the most flexibility in performing procedures. And ultimately this means better outcomes for our patients.”

Other Applications

In addition to performing cardiac stenting and mitral valve surgery in tandem, the hybrid OR creates new opportunities as well, says Dr. Shlofmitz. For example, if an interventional cardiologist is attempting a complicated multi-vessel bypass on a patient with a high risk for angioplasty, then the cardiothoracic surgical team can stand by to begin working immediately in the same room if needed.

“The hybrid room is also well-suited to percutaneous catheter-delivered valve replacement of the type we are exploring in the CoreValve trial,” says Dr. Robinson. “Other procedures that are well-suited to the hybrid OR are the placing of stents to repair aortic aneurysms, and there are also applications relevant to arrhythmia surgery and the treatment of lung cancer.”
Clinical Trials at St. Francis

At St. Francis Hospital, the following trials are enrolling patients. Please contact Elizabeth Haag, R.N., at (516) 562-6790 or elizabeth.haag@chsli.org for more information.

**MEDTRONIC COREVALVE® U.S. PIVOTAL TRIAL**

Newell Robinson, M.D., Chairman of Cardiothoracic and Vascular Surgery; George Petrossian, M.D., Director of Interventional Cardiovascular Procedures; Andrew Berke, M.D., interventional cardiologist; and Roberto Colangelo, M.D., cardiothoracic surgeon, are the principal investigators at St. Francis for the Medtronic CoreValve® U.S. Pivotal Trial, which is testing transcatheter aortic valve implantation (TAVI) in patients with severe aortic stenosis. The device studied in the CoreValve trial can be inserted in patients in the cardiac catheterization lab or in the OR. St. Francis is an active enroller for the CoreValve trial in the United States. Results from St. Francis and other leading clinical trial sites in the U.S. will be compiled and evaluated by the FDA, and could lead to FDA approval of the CoreValve System in 2014.

**BETTER BLOOD PRESSURE CONTROL**

George Petrossian, M.D., and Richard Shlofmitz, M.D., Chairman of Cardiology, are the principal investigators of the HTN-Simplicity trial, which involves the use of a catheter-based treatment in patients with high blood pressure who are taking large doses of multiple medications, but who still do not have adequate blood pressure control. The device under investigation helps to impair the function of the sympathetic nerves to significantly lower blood pressure. Other clinical trials have shown the device's effectiveness.

**ORBIT II**

ORBIT II is an IDE trial to evaluate the safety and efficacy of the Orbital Atherectomy System in treating de novo, severely calcified lesions in the coronary arteries. ORBIT II is unique in several ways. It is the only coronary device IDE Trial in the U.S. at this time and the first trial attempting to:

- Improve coronary reimbursement since DES
- Study severe coronary calcification and seek additional indication
- Treat patients with known left ventricular dysfunction.

Only 50 sites across the U.S. were selected and St. Francis is also the only site on Long Island to be in the study.

**EVALVE**

EVEREST II Continued Access Registry (REALISM) of the Evalve MitraClip® device has been recently reinitiated for expansion of enrollment of high risk patients. This open-label registry, limited to patients deemed at high surgical risk, will provide new information regarding the use of the MitraClip System under “real world” conditions and also provide data regarding functional capacity after treatment with the MitraClip device.

"This is really the frontier in terms of cardiac intervention for structured heart disease and managing VSD with catheter-based technology."

–Sean Levchuck, M.D.

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St. Francis Set to Begin Transcatheter Closure of VSDs

Patients at St. Francis Hospital with a ventricular septal defect (VSD) will soon be able to take advantage of a new and less invasive surgical approach.

“The procedure that will be done is a transcatheter closure of the VSD,” says Sean Levchuck, M.D., Chief of Pediatric Cardiology. “It’s different from the old days where everything was done operatively by open-heart surgery. This will be done all through the groin and involves going up with a catheter and placing a patch which is placed over the VSD. Instead of the risk of open-heart surgery, this is all closed heart. The patient goes home with a Band-Aid instead of a giant scar.” Post-op recovery is also quicker than with previous procedures, Dr. Levchuck says.

**The Initial Procedures**

Dr. Levchuck will perform the initial procedures in the next three to four months. St. Francis is the only hospital on Long Island at this time that will offer transcatheter closure of VSDs.

There will be five pediatric patients to have the procedure initially – four from Russia via the Gift of Life Program and one local patient. Gift of Life, Inc. partners with St. Francis Hospital to provide lifesaving cardiac care for children from economically and technologically disadvantaged countries, Dr. Levchuck says. The initial cases will help train their medical staff on the intricacies of this approach.

The procedure will likely be performed at St. Francis five to six times a year. “With our connection to Gift of Life and our normal pediatric patient population, I think we’ll easily be able to meet that goal,” he says.

**Expanding to Adults**

The procedure will also, in all likelihood, be performed in adult patients, he adds. “I think this will expand to the adult population, such as those with post myocardial infarction. This is a very common occurrence for people who have had heart attacks,” he says. “A VSD may develop as a result of a heart attack. This will be a way to make a tremendous impact on people who have had open heart surgery already. It’s an easier procedure and will be useful in the adult population.”

This type of treatment is on the leading edge for treatment of VSD which is offered by the St. Francis physicians. This represents a significant advantage to patients who previously required open heart surgery to treat this complication of a heart attack.

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**National Recognition for Cardiac and Non-Cardiac Care**

For the fifth consecutive year, St. Francis Hospital, The Heart Center® has been recognized by U.S. News & World Report as one of the best hospitals in the nation. The magazine’s prestigious annual ranking of medical institutions honored St. Francis once again as a leader in cardiology and heart surgery, geriatrics, and neurology and neurosurgery. The Hospital was the only one on Long Island to be nationally ranked in cardiac care and the only one to be nationally recognized in three specialties.

In addition to the three specialties for which the Hospital was nationally ranked, it was rated regionally as high-performing in eight other specialties: cancer, ear-nose-throat, gastroenterology, gynecology, nephrology, pulmonology, urology, and for the first time, orthopedics. As a result, St. Francis is the top-ranked hospital on Long Island and seventh among New York metro area hospitals.
Catheter Ablation Shows Success in Treating Atrial Fibrillation

Atrial fibrillation is one of the most common arrhythmias, and it can be associated with stroke, heart failure, and death. St. Francis Hospital’s Arrhythmia and Pacemaker Center offers minimally invasive, interventional options to treat the condition.

Joseph H. Levine, M.D., the Center’s Director, (left), pioneered catheter ablation and St. Francis has one of the highest volumes in the nation for performing the procedure, with top success and safety rates. In fact, St. Francis has set some of the protocols for treating the condition.

“It’s currently possible to target atrial fibrillation with catheter ablation,” says Dr. Levine. “The procedure involves targeting trigger mechanisms which cluster near pulmonary veins and changing the atrial substrate to make it less likely to fibrillate.”

The success rate with catheter ablation is currently 80 percent to 90 percent in patients with paroxysmal atrial fibrillation. In the latter patients, the irregular heartbeat only occurs occasionally. The success rate is 75 percent to 80 percent in patients with persistent or permanent fibrillation, Dr. Levine says. The success rates at St. Francis are higher than those published in medical literature.

Sometimes it takes additional effort to treat patients with atrial fibrillation. “The procedure may have to be done two or three times to achieve success,” Dr. Levine says. “Some patients still require antiarrhythmics, and some require anticoagulation medication.” Nonetheless, the procedure is very effective at eliminating the significant symptoms associated with the arrhythmia.

Some changes to the procedure that could be on the horizon include the use of newer energy forms that will soon be under investigation. Currently, surgeons use irrigated tip radiofrequency catheters.

St. Francis Hospital has offered the procedure for about eight years. Dr. Levine estimates the procedure has been performed in 500 to 1000 patients.

Dr. Levine and David Hoch, M.D., Vinni Jayan, M.D., and William Shin, M.D., perform the catheter ablation procedure for atrial fibrillation at St. Francis.

St. Francis Hospital Names New Director of the Center for Advanced Cardiac Therapeutics

Timothy J. Vittorio, M.S., M.D., has been appointed Director of the Center for Advanced Cardiac Therapeutics. He previously served as the Associate Director of the Congestive Heart Failure Program at Mount Sinai Medical Center and is an Assistant Professor of Medicine in Cardiology at its School of Medicine.

Dr. Vittorio received his Doctor of Medicine from the Sackler School of Medicine/Tel-Aviv University. He completed a General Surgery Internship followed by an Internal Medicine Residency at the Montefiore Medical Center of the Albert Einstein College of Medicine. He subsequently completed a Fellowship in Heart Failure and Cardiac Transplant at Columbia University as well as a Cardiovascular Fellowship at St. Luke’s-Roosevelt Hospital Center.

As a leading specialist in the field of Congestive Heart Failure, Dr. Vittorio’s clinical areas of expertise are cardiomyopathy, heart transplant, mechanical assist devices, and high-risk heart failure surgery. He also specializes in heart failure prevention, including obesity-related cardiac manifestations.

Dr. Vittorio is a member of the Heart Failure Society of America and is board certified in Cardiovascular Diseases. He has numerous publications, some of which have appeared in Circulation and the Journal of Cardiac Failure. Dr. Vittorio is currently participating in international, multicenter trials involving new drug therapies for acutely decompensated heart failure patients. He is also participating in studies looking at reversible cardiomyopathies using non-invasive modalities such as cardiac MRI.

For more information about the Center for Advanced Cardiac Therapeutics, or to discuss a particular case with Dr. Vittorio, please call (516) 629-2090.

Telemedicine for Heart Failure Patients

Heart failure patients often have many hurdles when it comes to self-managing their health. Some might live alone and lack support in preparing proper meals. Others might forget to take their prescribed medications. Still others might have life changes that prompt them to neglect good self-care.

Catholic Health Services of Long Island (CHSLI) offers a telemedicine program used by St. Francis to assist heart failure patients, aimed at reducing unnecessary re-hospitalizations. Participating patients use a small device to monitor certain benchmarks daily, such as their weight, blood pressure, and oxygen level. The numbers they track are transmitted to registered nurses who then compare them to the parameters set by physicians for that particular patient. When something in a patient’s readings triggers a red flag, a physician is notified to prevent the symptoms from escalating to hospitalization.

In the past, telemedicine was utilized in conjunction with home care. Now however, patients can be offered telemedicine through Care Link, a program of Catholic Home Care. “It can serve as a bridge for a few weeks, as patients get organized at home with new medications, diets, and routines,” says Mary Gallagher, R.N., CHFN, Manager of the Center for Advanced Cardiac Therapeutics at St. Francis.

“A study with 20 patients in 2009-2010 showed that the program trended toward decreased hospitalizations,” says Nicole Orr, M.D., Cardiologist and Staff Echocardiologist, “although the study was too small to show statistical significance.” Ten of the 20 patients in the study responded to a satisfaction survey; they all said they found the system easy to use and would recommend it to others.

“The program is beneficial to their understanding and sense of security about their illness,” Dr. Orr says.
St. Francis Hospital’s Cardiac Surgery Program Recognized Again for Top Volume and Success Rates in NY State

In 2011, the cardiac surgery program at St. Francis Hospital, The Heart Center® was recognized again by the New York State Department of Health (NYSDOH) for having the largest cardiac surgical caseload in New York State and among the highest success rates. In its most recently published analysis covering 2006 to 2008, the NYSDOH reported that St. Francis surgeons performed 4,588 cases of isolated coronary artery bypass surgery (CABG), valve surgery, or combined valve/CABG surgery for the three-year period 2006-08, the most recent years for which data has been released.

Remarkably, the hospital's total volume of cardiac surgery was 50 percent larger than the hospital with the next-largest caseload. St. Francis has consistently had the largest cardiac surgical volume in New York State since at least 1992, when the Department of Health began collecting, analyzing, and reporting cardiac surgical outcomes.

The NYSDOH also recognized St. Francis for being one of six hospitals in the state that had risk-adjusted mortality rates significantly below the statewide average. St. Francis has been recognized for outstanding success rates in cardiac surgery 11 times in the past 15 years that the State has issued reports, more than twice the number of times any other hospital in the metropolitan area has been recognized.

In addition to recognizing the overall program, two of the most experienced surgeons at St. Francis Hospital were also individually recognized for having risk-adjusted mortality rates significantly lower than the statewide average: Roberto Colangelo, M.D., and James Taylor, M.D., Vice Chairman of Cardiothoracic Surgery and Director of Thoracic Aortic Surgery.

The cardiac surgical volumes and analysis can be found in the report, Adult Cardiac Surgery in New York State, 2006-2008, which can be found on the New York State Department of Health website: http://www.health.state.ny.us/statistics/diseases/cardiovascular/.

St. Francis Brings Nationally Renowned Open-Heart Surgery Program to Good Samaritan

Good Samaritan Hospital Medical Center will soon begin an open-heart surgery program that will have a vital connection to St. Francis Hospital, The Heart Center®. The new, much anticipated service will allow St. Francis to bring its nationally recognized and award-winning open-heart surgery program to residents of Suffolk County, New York.

As members of Catholic Health Services, Good Samaritan and St. Francis have a long history of collaboration. The two hospitals are committed to achieving the highest level of care and patient safety available, with superior clinical outcomes. Both hospitals also hold the coveted Magnet Award for nursing excellence.

“As a premier heart institution, St. Francis seeks opportunities to offer its services to the community. Partnering with another member of Catholic Health Services allows us to reach even more people,” says Alan D. Guerci, M.D., President and CEO.

“We look forward to continuing our collegial partnership with the nationally renowned St. Francis Hospital in the development of our open-heart surgical program,” says Larry Altschul, M.D., Good Samaritan’s Director of Cardiology.

The program is scheduled to open in spring 2012. For more information on cardiac services at St. Francis, call (516) 705-6657. To find out more about Good Samaritan’s new open-heart surgery program, call (631) 376-4444.