In today’s environment, using the single end point of mortality for coronary surgery is no longer sufficient. In addition to achieving a better than expected operative mortality, the Cardiac Surgery team at The Valley Columbia Heart Center has focused on a number of other elements to assess the quality of our coronary bypass operations. These include extensive revascularizations, a significantly higher utilization of arterial grafts, less blood utilization, virtual elimination of intra-aortic balloon pumps, reduction in the occurrence of atrial fibrillation, and minimal renal complications (see page 10 for results).

Alex Zapolanski, M.D.
Director, Cardiac Surgery
The Valley Columbia Heart Center

Dear Colleague,

The Valley Columbia Heart Center is pleased to present the second edition of Cardiac Surgery Outcomes.

The increased effectiveness of medical management and percutaneous interventions has led to a reduction in the number of operations for isolated coronary disease. Patients referred for surgical revascularization are more complex, and in turn, carry higher risk.

We remain focused as well on valvular pathology, arrhythmia surgery, aortic surgery, and the surgical management of patients with heart failure.

We have merged our 2006 - 2007 experience to provide you with a broader understanding of our practice. Our commitment to excellence has twice been rewarded by The Society of Thoracic Surgeons with the highest possible rating assigned to a surgical program. This honor placed us in the top 12 percent of surgical programs nationwide.

We are grateful for your support and confidence in our program.

Sincerely,

Alex Zapolanski, M.D.
Director, The Valley Columbia Heart Center
Clinical Assistant Professor, Columbia University College of Physicians & Surgeons

Valley’s Cardiac Surgery program has been recognized by The Society of Thoracic Surgeons for quality and clinical excellence.

The Valley Hospital, Ridgewood, NJ
INTERPRETING RESULTS IN CARDIAC SURGERY

The specialty of cardiac surgery has been in the forefront of documenting results. Our field provides a unique opportunity to assess performance.

The Society of Thoracic Surgeons (STS) has developed a database that collects surgical demographics and results. It also uses methodology to adjust for case complexity. These statistical techniques, while not perfect, attempt to compensate for the difficulty of assessing the risk of different groups of patients. We use these national standards to evaluate our results.

Our patients are entered into the STS database, which is provided to Duke University Clinical Research Institute to generate a national comparison report.

Based on past surgical experience, patients with a specific pathological process have an “expected” result from a heart operation. The “observed” result from any type of surgery can then be compared to the expected result. A ratio is calculated. Anything equal to 1 is satisfactory. A ratio less than 1 exceeds expectations.

Full Table:

<table>
<thead>
<tr>
<th>Procedure Description</th>
<th>Total Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary CABG</td>
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<tr>
<td>Others</td>
<td>37</td>
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<tr>
<td>Surgery of the Aorta</td>
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<tr>
<td>Multiple Valve</td>
<td>103</td>
</tr>
<tr>
<td>Procedures +/- CABG +/- other</td>
<td>19</td>
</tr>
<tr>
<td>Mitral Valve Replacement + CABG</td>
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<tr>
<td>Mitral Valve Replacement</td>
<td>31</td>
</tr>
<tr>
<td>Mitral Valve Repair + CABG</td>
<td>91</td>
</tr>
<tr>
<td>Aortic Valve Replacement + CABG</td>
<td>25</td>
</tr>
<tr>
<td>Reop CABG</td>
<td>21</td>
</tr>
</tbody>
</table>

Total Cardiac Surgeries - 1,098

For Example:

Observed mortality = 1.5
Expected mortality = 2.0

Observed to Expected (O/E ratio) = .75 or better than expected.

Improvements in surgical techniques and technological advances have contributed to enhanced results, even with increased patient complexity. Morbidity and mortality continue to decrease, creating new standards to strive for.

We encourage you to review the enclosed material and keep it handy for reference.

Comparative data has been obtained from the 2007 Fall Harvest of the Society of Thoracic Surgeons.

Valley = The Valley Columbia Heart Center
STS = Society of Thoracic Surgeons, Fall 2007 Harvest
Region = New Jersey Cardiac Surgery programs reporting to the STS

PROGRAM VOLUME AND PERFORMANCE

The Valley Columbia Heart Center performed 1,098 procedures in 2006/2007. Improvements in medical management and the results of the Courage Trial led to a reduction in the number of myocardial revascularizations by surgical means, as well as by percutaneous interventions. The Valley Columbia Heart Center performs a higher percentage of valvular and other complex procedures than the Society of Thoracic Surgeons average.
PATIENT SATISFACTION

A survey of patients and their immediate family members conducted in association with the Transforming the Intensive Care Unit initiative reflected a very positive cardiac surgery experience at Valley. The Valley Columbia Heart Center’s compassionate approach to care complements our technical expertise, integrating the elements needed to provide confidence in our systems and expeditious rehabilitation.

PAIN MANAGEMENT

The Valley surgeons and Intensive Care Unit specialists have paid particular attention to pain management. In a survey of 21 hospitals participating in a comprehensive research initiative entitled Transforming the Intensive Care Unit, Valley patients rate the program as one of the best in this area. 94.4 percent of patients consider their pain control excellent, or at a level of 3 or less on a scale of 1-10.

PATIENT SATISFACTION

MAGICAL PROCEDURES MORTALITY

These numbers reflect 1,098 patients operated on in 2006/2007. The Valley Columbia Heart Center treats a large number of patients of advanced age. More than 50 percent of our patients are over the age of 70 and close to 20 percent are over the age of 80. As risk increases with age, modern techniques allow us to offer complex procedures to this patient population.

MORTALITY RELATED TO AGE

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Srinivasa Edara, M.D., Director, Cardiac Surgery Intensive Care Unit, is directly involved in the medical management of all cardiac surgery patients and assists families while their loved one is in the hospital.
Intra-operative and post-operative control of blood sugar has been shown to improve results. Tight control with peri-operative infusion of insulin has been consistently achieved by The Valley Columbia Heart Center team. The chart below reflects results for 2007.

Perhaps the most significant expression of glucose control is our very low incidence of deep sternal wound infections.
Surgeons at The Valley Columbia Heart Center have experience performing off-pump coronary bypass in more than 4,000 patients. The majority of our patients are operated on without the heart-lung machine because our data, as well as The Society of Thoracic Surgeons’ publications reflect the benefit of this technique in selected patients. Off-pump techniques benefit men and women and narrow the disparity in mortality after coronary bypass grafting.\(^1\)

Higher occurrence of left main trunk stenosis reflects increase in severity and risk.

**Comparison of the Severity of Risk for Valley Hospital Patients versus STS Coronary Artery Bypass Patients**

Study of 42,477 patients
RESULTS AND QUALITY MEASURES

OBSERVED TO EXPECTED MORTALITY RATIO

Isolated CABG refers to patients undergoing coronary bypass without any other procedures. Valley Columbia Heart Center surgeons performed 610 isolated CABGs in the past two years with a combined mortality of 1.3 percent (2006/2007).

OPERATIVE PRIMARY CORONARY SURGERY MORTALITY

According to the STS, expected mortality for The Valley Columbia Heart Center coronary patients in 2007 was 2.51. Note that although the absolute mortality increased slightly in 2007, O/E ratio decreased. This reflects increased acuity in our patients.

RE-OPERATIVE MORTALITY FOR CORONARY SURGERY

CABG re-operation carries a higher mortality than primary procedures. For two consecutive years, mortality at Valley has been zero.

ARTERIAL GRAFT UTILIZATION

Arterial grafts improve long-term results by reducing risk of re-operation and reducing risk of cardiac events.

The Society of Thoracic Surgeons considers the use of the internal mammary artery (IMA) as a quality indicator in coronary surgery. Surgeons at The Valley Columbia Heart Center use both IMAs at five times the national average.

97 percent of patients at The Valley Columbia Heart Center receive at least one internal mammary artery graft.

IMA UTILIZATION (AT LEAST 1 IMA)

TVH Region STS TVH Region STS

TVH 2006 3.9% 0% 0%

Valley 2006 3.8% 0% 0%

Region 2006 STS 3.6% 0% 0%

Region 2007 STS 2.6% 0% 0%
The Cardiac Surgery team at The Valley Columbia Heart Center performs more extensive revascularization than other hospitals across the nation, in spite of the fact that off-pump techniques are used more frequently. In 2007, the average number of bypasses per patient at The Valley Columbia Heart Center increased by 9 percent. Complete revascularization improves long-term results.

Although off pump CABG is technically more challenging than on pump surgery, Valley heart surgeons still achieve more extensive revascularization, as evidenced by the higher average number of bypass grafts per patient.
RENAL FAILURE

The occurrence of renal failure in coronary surgery has remained low. We attribute this trend to a high utilization of off-pump techniques. Detailed attention to protecting the heart when the operation is conducted on bypass has led to better cardiac performance providing, in turn, a renal-protective effect.

ATRIAL FIBRILLATION

We achieved a reduction in the incidence of atrial fibrillation in the past year by improving the technique of posterior pericardial drainage. It has been documented that reduction of residual blood in the pericardium is associated with less atrial fibrillation. A lesser incidence of arrhythmias reduces the need for anticoagulation and the length of stay.

STROKE

Our incidence of stroke has been low due to a high percentage of off-pump cases. With our advanced technique of myocardial protection and our extensive use of off-pump techniques, the use of IABP has been significantly minimized.
ENDOSCOPIC VEIN HARVESTING

Endoscopic vein harvesting has become the standard of care. Patients operated on at The Valley Columbia Heart Center benefit routinely from this technique. Endoscopic harvesting improves cosmesis, reduces pain, and has virtually eliminated the risk of infections in the lower extremities.

To see a film showing a videoscopic dissection and extraction of the vein through one small incision near the knee, visit www.valleycolumbiaheartcenter.com and click on Procedures and Techniques, then Endoscopic Vein Harvesting.

CENTER FOR HEART VALVE DISEASE

Valvular Surgery continues to represent a significant percentage of The Valley Columbia Heart Center’s total volume of surgery. In fact, 39 percent of all surgeries performed at the Center were valve procedures.

Over the last two years, 425 valve procedures were performed at The Valley Columbia Heart Center.

DISTRIBUTION OF VALVE PROCEDURES

Valves, complex (asc. Aorta + other)

Multivalve repair or replacement

MV repair + CABG

MV replacement + CABG

Mitral Valve Repair

Isolated AVR

AVR + CABG

Isolated MVR

USE OF MECHANICAL VALVE VS. BIOPROSTHESES (tissue valves)

Bioprostheses have become the valve of choice for surgeons at The Valley Columbia Heart Center. These valves allow the majority of patients to avoid anticoagulation. Younger patients also choose bioprostheses to enjoy a better of quality of life.

BIOPROSTHESES vs MECHANICAL VALVE USAGE
MITRAL VALVE REPAIR AND REPLACEMENT

Since 1993, 811 mitral valves have been repaired at The Valley Columbia Heart Center. In 2006/2007 186 patients underwent mitral valve surgery. 140 of these patients were potential candidates for mitral valve repair (no previous valve surgery, no calcification of the mitral valve). Of the 140 patients, 112 underwent mitral valve repair (80 percent). Mitral valve repair provides patients with better outcomes in degenerative and ischemic disease.

AORTIC VALVE SURGERY


At 37, Joe Gallione suffered shortness of breath and severe chest pain. He was diagnosed with a bicuspid aortic valve that had narrowed and an aneurysm of his aorta. The Cardiac Surgery team at The Valley Hospital performed a replacement of Joe’s aortic valve and his ascending aorta using a minimally invasive approach. Joe was back to work and spending time with his family in just 19 days.

Twenty five years ago, Charles Cavadini, now 51, was diagnosed with mitral valve prolapse. While he was always closely monitored, in 2007 his condition worsened and Charles was referred to The Valley Columbia Heart Center. On October 31, 2007, Valley surgeons used a minimally invasive approach to repair his mitral valve. Five days later, Charles went home. “I was driving within three weeks, back to work in four, and by February was off medication and cleared for all activities, including skiing.” He recently began cardiac rehabilitation classes at Valley.
MINIMALLY INVASIVE APPROACHES

Surgery of the Aortic and Mitral Valve can be performed through small incisions. Valley surgeons have been performing less invasive valve surgeries since the procedures were developed in the mid-nineties. While not all patients are candidates for minimally invasive techniques, surgeons carefully evaluate patients to determine the best technique for each individual.

To see a film showing a mini Mitral Repair, visit www.valleycolumbiaheartcenter.com and click on Procedures and Techniques, then The Center for Heart Valve Disease.

ROBOTICALLY ASSISTED CORONARY SURGERY

The da Vinci® Surgical System has been available at Valley since 2001. Selected patients with Coronary Artery Bypass limited to the anterior wall of the heart are candidates for a single or double bypass.

The experience of the Valley surgical team was presented at the International Society for Minimally Invasive Cardiac Surgery in June 2006 in San Francisco. A total of 22 patients underwent robotically assisted coronary bypass with no mortality.

SURGERY OF THE AORTA

Diseases of the aorta frequently present with associated pathology. In 2006/2007 our team performed 46 operations on the aorta, and 35 of the cases required combined procedures, including valvular surgery or coronary bypass.

There were only 3 deaths for an unadjusted mortality rate of 6.5 percent. The three patients were operated on under emergency circumstances. Mortality for elective aortic surgery was 0 percent.

We provide our patients all options available to treat their condition according to their needs and lifestyle. These include aortic root replacement, (biological and mechanical composite grafts, valve-sparing procedures), aortic arch replacement, and separate replacement of the aortic valve and the ascending aorta as well as hybrid open and endovascular (minimally invasive) procedures.

Our Thoracic Aortic Surveillance Program allows us to monitor smaller sized aneurysms in the ascending and descending thoracic aorta with serial CT angiograms. With continued surveillance, we can provide counseling to the patients and their families until the aneurysm becomes sufficiently large or symptomatic for intervention.

Aortic Surgery Mortality

Patients who have a normal aortic valve with an aneurysm benefit from preserving their own valve.

Complex thoracoabdominal aneurysm replaced with a graft.
flying his own plane. Medication-free and back to work within a month. Today Mr. Janson is flying his private plane.

Valley surgeons use the classical cut and sew technique, radio frequency, and cryo-ablation to treat atrial fibrillation.

Minimally invasive surgical techniques are selected for patients with paroxysmal atrial fibrillation. Success is achieved in 80 to 90 percent of patients.

Seventy nine patients underwent atrial fibrillation surgery as a sole procedure or in combination with open heart surgery in 2006/2007. A crucial aspect of the surgical management of atrial fibrillation is the ability to eliminate the left atrial appendage. In fact, it has been suggested that if the left atrial appendage is excluded, the necessity for anticoagulation with Coumadin could be eliminated. Valley heart surgeons have successfully ligated the left atrial appendage over 1,000 times without complications during both open and minimally invasive surgeries.

The medication Philip Janson required to stabilize his heart rhythm often stopped him from flying his private plane. The surgeons at The Valley Columbia Heart Center recommended a minimally invasive procedure to eliminate the chaotic electrical conduction in Mr. Janson’s heart. The instruments were inserted into his chest through small incisions made near his underarm instead of through a large chest incision. During the procedure, surgeons eliminated the left atrial appendage, a common site for blood clots to form. Because his surgery involved minimally invasive techniques, he left the hospital after just two days and returned to work within a month. Today Mr. Janson is medication-free and back flying his own plane.

LIGATION OF THE LEFT ATRIAL APPENDAGE

The left atrial appendage is the most common site for clot formation in patients suffering atrial fibrillation. Surgeons at The Valley Columbia Heart Center have perfected the technique to exclude the left atrial appendage. Echocardiographic studies performed at The Valley Columbia Heart Center have shown the efficiency of our technique.

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Ablation of the pulmonary veins using a minimally invasive technique. For the full procedure, visit www.minimaze.org.

VENTRICULAR ASSIST DEVICES

Ventricular Assist Devices (VADs) represent the biggest technological innovation in heart failure, and utilization has advanced rapidly over the past decade. Typically only used at large academic centers, infrequently community open heart programs, such as The Valley Hospital, implement such an intervention. When the heart fails, due to any number of causes, such as myocardial infarction, valve failure, myocarditis, or even as a consequence of open heart surgery, the patient may manifest cardiogenic shock. Despite intra-aortic balloon counterpulsulation and modern inotropes, a substantial percent of patients who present in shock will die. Emergent implantation of a left- or right-sided VAD (or both) can be life-saving, allowing for prompt re-perfusion of vital organs, and reversing the effects of shock. Patients then go on to have the offending cause treated.

Further, patients may be able to recover enough cardiac function to have the VAD explanted and be discharged from the hospital. Patients who cannot recover without continued VAD support are transferred to an academic center such as Columbia-Presbyterian Medical Center, where they have the full array of heart failure options, including “permanent” VADs and heart transplantation. Studies comparing outcomes in patients presenting with cardiogenic shock have shown significantly better survival when treated in centers that have VAD therapy in the treatment algorithm. This makes The Valley Hospital uniquely prepared for even the most complicated cardiac patients. The Valley Hospital surgeons have implanted nine such devices, and the program continues to grow to match our community’s needs.

TECHNOLOGICAL INNOVATIONS

Ventricular Assist Devices

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Transmyocardial Laser Revascularization (TMR)

Transmyocardial Laser Revascularization (TMR) is available at The Valley Hospital for patients with diffusely diseased coronary arteries that are not suitable for conventional coronary surgery. TMR is also used in conjunction with conventional surgery in areas of the heart where the coronary arteries are small or too diseased to accept a bypass.

While TMR has not been shown to prolong life, it helps to control angina, reduces re-admissions to the hospital, and can be a solution for patients with disabling angina who cannot be revascularized.
SURGERY FOR HEART FAILURE

Heart Failure is one of the most prevalent conditions in clinical medicine. Five million people in the U.S. have heart failure, and it is estimated that 68 percent of these patients suffer from coronary disease. Yet only 11 percent of all patients with ischemic cardiomyopathy undergo cardiac catheterization. In turn, only a fraction of heart failure patients can be treated with the many tools available today. Two thirds of patients with heart failure due to ischemic cardiomyopathy have recoverable myocardium and could be helped by surgery or percutaneous intervention.

At Valley MRI technology with special software – MARISA™ – allows us to identify patients that could benefit from available therapies.

J. Jayne Gumbs’ heart was enlarged and only functioning at 20 percent. Told by two doctors that there was nothing more that could be done to treat her congestive heart failure, Mrs. Gumbs called The Valley Columbia Heart Center. Using MARISA™ software for a more precise assessment of Mrs. Gumbs’ heart, surgeons bypassed four of her clogged coronary arteries and reshaped her heart so that it would function better. After five days in Valley, Mrs. Gumbs was discharged to Helen Hayes Hospital in Nyack, N.Y., where she spent two weeks undergoing cardiac rehabilitation. Today, Mrs. Gumbs’ heart is functioning more efficiently, her symptoms have subsided, and she is enjoying time with her grandchildren.

THE VALLEY HOSPITAL CENTER FOR HEART FAILURE

Valley’s Congestive Heart Failure Program is a multidisciplinary program that incorporates the expertise of physicians, surgeons, nurse practitioners, nurses, pharmacists, dietitians, cardiac rehab professionals, case management specialists, and home care staff. The program offers patient education and professional consultation.

The Heart Failure Program has been integrated with the hospital’s cardiac surgery, interventional cardiology, electrophysiology, diagnostic imaging and home care services to ensure heart failure patients access to existing evidence-based evaluations and treatments.

Technologies offered through Valley’s Heart Failure Program include:
- Cardiac MRI with MARISA™ capability,
- Ultrafiltration,
- Defibrillators and resynchronization,
- Ventricular remodeling surgery, and
- Left Ventricular Assist Devices.

THE CENTER FOR WOMEN’S HEART HEALTH

To raise awareness for the incidence of heart disease in women, Valley has established the Center for Women’s Heart Health. The Center offers a complimentary Heart Risk Assessment that is specially designed for women. The screening includes a blood pressure screening, a heart, lung, and pulse assessment, blood glucose monitoring, neurological assessment, and ankle-brachial index. For more information, please call 201-447-8125.
Dedicated Team of Anesthesiologists for The Valley Columbia Heart Center

The Valley Columbia Heart Center has a dedicated team of board certified anesthesiologists available 24-hours a day, seven days a week. They are an integral part of the Center’s team and work side by side with a surgeon and his patient to design the most appropriate plan for anesthesia before, during, and after a patient’s surgery.

STUDIES AND TRIALS

Interventional Cardiology

A wide variety of interventional treatment options are available from Valley’s comprehensive interventional cardiology program. Interventional procedures are those in which catheters or other devices are inserted through blood vessels to diagnose and treat disease. Using a wide range of the most sophisticated technology available, from imaging equipment to implantable devised such as drug eluting stents, patients who come to Valley are offered state-of-the-art cardiac care in our high-risk Catheterization Laboratory. Among the many treatment options available are interventions for coronary artery disease, congenital abnormalities, heart failure, valvular heart disease, and carotid and peripheral disease.

For a referral to a Valley Hospital Interventional Cardiologist, call 1-800-VALLEY 1 (1-800-825-5391).

Electrophysiology

Electrophysiology is a subspecialty of cardiology which examines the conduction system and electrical stability of the heart by recording and stimulating from within the cardiac chambers. It is one of the fastest growing areas in cardiology. Abnormal rhythms, formerly only treated by medications, can now be treated by sophisticated and highly specialized treatments, such as implantable devices and catheter ablation. With the most sophisticated technology available in the field, Valley Hospital electrophysiologists take great pride in offering a full-range of the most effective treatments for a broad range of heart rhythm abnormalities.

For a referral to a Valley Hospital Electrophysiologist, call 1-800-VALLEY 1 (1-800-825-5391).

Clinical Trials

At The Valley Hospital we have approximately 30 cardiac clinical trials open to participants who meet certain criteria for each study. More than 200 patients in clinical trials are currently being followed up by our board-certified cardiologist, cardiac surgeons, and research nurses. Just a few of the trials taking place at Valley include studies to evaluate new drug-coated cardiac stents, new medications, new methods in cardiac surgery, combinations of medications, heart valves, a registry to monitor patients, and studies to evaluate the quality of life of patients who receive pacemakers. For more information visit www.valleyhealth.com/cardiology.

Staff Biographies

Alex Zapolanski, M.D., F.A.C.C., F.A.C.S., Director

Board Certification: American Board of Surgery, Diplomate; American Board of Thoracic Surgery, Diplomate
Education: Universidad De Buenos Aires
Residency: Cleveland Clinic Foundation, Cleveland, OH
Internship: Union Memorial Hospital

Alex Zapolanski, M.D., F.A.C.C., F.A.C.S., is an assistant clinical professor of surgery at Columbia University’s College of Physicians & Surgeons. Throughout most of his 25-year career, he has been conducting clinical research. His research interests include valve replacement surgery and the treatment of atrial fibrillation. His research has been published extensively in leading medical journals, including the Journal of the American College of Cardiology, the Journal of Cardiac Surgery, and the Annals of Thoracic Surgery.

At The Valley Columbia Heart Center, Dr. Zapolanski and the cardiac surgery team are conducting a number of cardiac clinical trials, some in conjunction with cardiologists on staff. These include the RESOLVE trial to assess a minimally invasive surgical approach using microwave energy to treat permanent atrial fibrillation and the FREEDOM trial to compare surgery versus angioplasty with drug-coated stents to treat diabetic patients with multiple blockages in the coronary arteries.

Dr. Zapolanski speaks English, Spanish, Italian, and French.

Bruce P. Mindich, M.D., F.A.C.S.

Board Certification: American Board of Thoracic Surgery, Diplomate
Education: Syracuse University, Syracuse, NY; SUNY, Downstate Medical Center, Brooklyn, NY
Residency: Mount Sinai Medical Center, New York, NY; Interfaith Medical Center-Brooklyn, Brooklyn, NY
Fellowship: Cleveland Clinic Foundation, Cleveland, OH; University of Alabama Medical Center, Birmingham, AL

Dr. Mindich served as Director of Cardiac Surgery at the Valley Hospital from the Cardiac Surgery program’s formation in 1988 to 2005. He has been the recipient of numerous awards and honors and has authored or co-authored scores of research papers, clinical book chapters, and clinical abstracts. He has presented at major clinical conferences across the country. Dr. Mindich was instrumental in bringing the Off-Pump Coronary Artery Bypass procedure to Valley in 1999. The procedure allows a greater number of cardiac patients with heart disease to have bypass surgery since the surgeon can bypass as many as five or six vessels without relying on a heart-lung machine and heavy anesthesia.

Eric H. Bronstein, M.D., F.A.C.S., F.C.C.P., Director of Robotic and Minimally Invasive Cardiac Surgery

Board Certification: American Board of Surgery, Diplomate; American Board of Thoracic Surgery, Diplomate
Education: SUNY at Stony Brook School of Medicine, Stony Brook, NY
Residency: State University of New York Health Science Ctr, Brooklyn, NY
Fellowship: George Washington University Hospital, Washington, DC

Eric H. Bronstein, M.D., F.A.C.S., F.C.C.P., has been at The Valley Hospital for over ten years practicing both adult cardiac and thoracic surgery. He is also an assistant clinical professor of surgery at Columbia University. He is a member of: The Society of Thoracic Surgeons, The International Society for Minimally Invasive Cardiothoracic Surgery, The New Jersey Society of Thoracic Surgeons, The Cardiothoracic Surgery Network, American Medical Association, Fellow American College of Chest Physicians, and Fellow American College of Surgeons. Dr. Bronstein has authored and co-authored numerous research papers on cardiac-related issues. He has made presentations at medical conferences across the country, and is principle investigator on a number of recent clinical trials at the Valley Hospital.

His skills include off-pump coronary artery bypass surgery, minimally invasive valvular surgery, da Vinci® robotic assisted cardiac surgery, minimally invasive atrial fibrillation surgery, and video-assisted thoracic surgery (VATS).
Jason Sperling, M.D., F.A.C.S.

Board Certification: American Board of Surgery, Diplomate; American Board of Thoracic Surgery, Diplomate

Education: State University of New York Health Science Ctr, Brooklyn, NY; SUNY at Brooklyn, Brooklyn, NY

Residency: University of Maryland Hospital, Baltimore, MD

Fellowship: University of Virginia Medical Center, Charlottesville, VA

Jason Sperling, M.D., F.A.C.S., is an assistant clinical professor of surgery in Columbia University’s Division of Cardiothoracic Surgery. He is board certified by the American Board of Surgery and the American Board of Thoracic Surgery.

Dr. Sperling has co-authored numerous papers on tissue engineering of heart valves during time spent at Harvard University’s Children’s Hospital in Boston. He is published in well-known peer-reviewed scientific journals. He is currently a co-investigator in two cardiac clinical trials at Valley.

His clinical interests include minimally invasive cardiac surgery, endovascular repair of the thoracic aorta, aortic surgery, mitral valve repair, heart failure/LV remodeling, and tissue engineering of cardiovascular structures.

Srinivasa Edara, M.D., F.C.C.P., Director, Cardiac Surgery ICU

Critical Care Medicine; Internal Medicine

Board Certification: Subspecialty Board of Critical Care, Diplomate; American Board of Internal Medicine, Diplomate; American Board of Sleep Medicine; Diplomate

Education: Guntur Medical College, India

Residency: Interfaith Medical Center-Brooklyn, Brooklyn, NY; St. Luke’s-Roosevelt Hospital Center, New York, NY

Fellowship: Mount Sinai Medical Center, New York, NY;

Srinivasa Edara, M.D., F.C.C.P. is a member of the American College of Chest Physicians, Society of Critical Care Medicine, and American Society of Sleep Medicine. He is experienced in the management of medical problems and complications in cardiac surgery patients. He is published in well-known scientific journals.

His areas of interest include post-operative atrial fibrillation, perioperative glucose control, and minimizing perioperative blood products utilization.

Mariano Brizzio, M.D.

Certified in cardiovascular surgery by the Colegio Argentino de Cirujanos Cardiovasculares

Education: University of Buenos Aires School of Medicine

Residency: Instituto Sacre Coeur

Fellowship: Cleveland Clinic

Mariano Brizzio, M.D., is a clinical instructor of surgery at Columbia University’s College of Physicians & Surgeons. He is skilled in all types of cardiothoracic surgery, with special interests in atrial fibrillation, minimally invasive cardiothoracic surgery, blood preservation techniques, alternative surgery for heart failure, mechanical assist devices, and heart and lung transplantation.

Throughout his career, Dr. Brizzio has participated in clinical research in valvuloplasty, minimally invasive cardiothoracic surgery, lung transplantation, and blood preservation techniques. His work has been published in several medical journals, and he has presented at annual meetings of the American College of Cardiology and the Society of Thoracic Surgeons. He is a member of the Argentinean College of Cardiovascular Surgeons and the American College of Cardiology.

Dr. Brizzio is fluent in English and Spanish.