



Albany Medical Center

Congenital Heart Program

Dear Colleague:

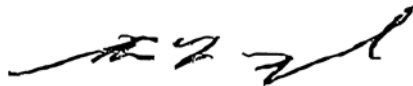
We are pleased to share this report outlining Albany Medical Center's multidisciplinary approach in treating patients with congenital heart disease. The report coincides with the release of new data showing that our Center's Pediatric Cardiac Surgical Program ranks first in New York State for lowest risk-adjusted mortality rate. The New York State Department of Health report on Pediatric Congenital Heart Surgery, released in 2007, shows that Albany Medical Center achieved a risk-adjusted mortality rate of 1.96, the lowest of all New York hospitals (a reprint of the data is provided on page 3 of this report).

Led by Neil Devejian, M.D., Albany Medical Center's Congenital Heart Program is a comprehensive program consisting of diagnosis, management and follow-up of patients with congenital heart disease ranging in age from fetus to adult. Team members from pediatric cardiology, neonatology, maternal-fetal medicine, pediatric intensive care, nursing, radiology, respiratory therapy, perfusion and pediatric cardiac anesthesia all work together to provide superb and individualized care. The result is excellent surgical outcomes and high levels of patient satisfaction. In addition, transport services for sick infants and children are available 24-hours a day.

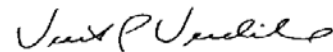
To build on our success, Albany Medical Center is increasing outreach efforts in order to better serve our patients and their physicians — in New York State, and beyond. We are excited to introduce echocardiography by telemedicine to Kingston and Benedictine Hospitals. This will allow on-site echocardiographic consultation with our pediatric cardiologists at any time of day. Outreach clinics are now available in Glens Falls and Kingston, and additional clinics will soon be starting in Kingston. Any member of our team would be pleased to speak at local presentations, hospital grand rounds or by phone consultation. We also welcome any house staff or ancillary staff who wish to participate in our outreach clinics or other activities in Albany.

While we are proud to be recognized for our accomplishments, we will continue to work to improve our services for your patients whose care you have entrusted to us.

Sincerely,



Steven M. Frisch, M.D.
EVP, Albany Medical Center
Hospital Systems General Director



Vincent P. Verdile, M.D.
EVP, Albany Medical Center
Dean of Albany Medical College





Caring for Congenital Heart Disease

Approximately 1% of all children are born with congenital heart disease, the most common type of birth defect. For some, the condition will not be urgent. For others, it may be imminently life-threatening. All patients with congenital heart disease require highly sophisticated care from an integrated, multidisciplinary health care team.

Over the past several decades, staggering advances have been made in our ability to accurately diagnose and successfully treat congenital heart defects. Current knowledge, technology and sophisticated procedures make it possible to address even the most complicated cardiac defects. Today, the likelihood of a positive outcome is greater than ever before. Most patients are able to grow up and live full healthy lives.

Advances in diagnostics, such as fetal echocardiography, enable us to detect many congenital heart defects before birth. Prenatal detection allows for family counseling and planning, as well as immediate stabilization of the newborn.

Alternative treatment strategies, such as catheter-based interventions, have made it possible for many children to avoid open heart surgery altogether. These less invasive procedures enable children to recover more quickly, with fewer complications and less time in the hospital.

When surgery is needed, the latest surgical techniques make it possible to correct congenital heart diseases that were once thought to be untreatable. Most defects can now be completely repaired early in life, often with a single operation, remarkably low mortality rates and excellent long-term outcomes.





A Multidisciplinary Team Approach

At Albany Medical Center, we recognize that achieving superior clinical outcomes in the treatment of patients with congenital heart disease requires expertise across multiple disciplines. Our experienced specialists are skilled in the most current techniques and treatment methods. They work collaboratively with referring physicians to evaluate each patient's condition and develop a comprehensive, individualized treatment plan.

In addition to our cardiothoracic surgeon and pediatric cardiologists, our interdisciplinary patient care team includes pediatric intensivists, pediatric anesthesiologists, nurses, perfusionists, child life specialists, pediatric radiologists, pediatric respiratory therapists, and other specialized practitioners.

A Hospital within a Hospital

The Congenital Heart Program is located within the Children's Hospital of Albany Medical Center, the only children's hospital in Northeastern New York State. Our patients with congenital heart disease receive personalized care in an environment specially designed for the comfort, needs and convenience of children and their families.

A 125-bed state-of-the-art facility, the Children's Hospital serves as the referral center for all seriously ill or injured children from 25 counties in Northeastern New York and Western New England. Ours is the only medical facility in the region with round-the-clock pediatric emergency services and a 17-bed Pediatric Intensive Care Unit, including individual suites.

Our Neonatal Intensive Care Unit – the region's only Level IV facility – includes a Perinatal Center that provides medical care

for critically ill newborns and premature infants, as well as support programs for their families. This modern unit houses 52 beds.

Our patients and their families are able to relax in the hospital's comfortable surroundings. Sleep rooms for parents or guardians wishing to stay overnight with their child are available, either at the hospital or the nearby Ronald McDonald House.

While patients at the Children's Hospital receive care that is more personalized than at most major hospital facilities, they still benefit from Albany Medical Center's status as the region's only academic medical center. Our patients have access to a full range of pediatric, medical and surgical specialties to ensure that they receive the best treatment available.

Pediatric Cardiothoracic Surgery

At Albany Medical Center, our young patients with congenital heart defects have access to a surgical program that treats the entire spectrum of congenital heart disease. Our program provides cutting-edge surgical techniques, advanced anesthetic management and comprehensive pre- and post-operative care tailored to the needs of children. Albany Medical Center has developed and utilizes sophisticated surgical techniques that minimize the risk of neurological injury and the need for blood product transfusions.

With most congenital heart defects, the primary objective is to perform a single, completely corrective operation early in life – often in the neonatal period. Our emphasis is not simply on survival, but on performing high quality operations to ensure minimal morbidity, decreased length of hospital stay and provide durable repairs which maximize the quality of life and minimize the need for reinterventions. Our success rates for all types of congenital heart surgery match or exceed those achieved at the most prestigious centers worldwide.

As our program's full-time on-site pediatric cardiac surgeon, Dr. Neil Devejian devotes his expertise to the care of children with congenital heart defects. Dr. Devejian has performed over 1000 operations for congenital heart defects during the course of his distinguished career. He is joined by an OR team with extensive pediatric surgical experience. Dr. Devejian also serves as Co-Director of the Congenital Heart Program. As such, his involvement in patient care goes well beyond the operating room. He is intimately involved in caring for patients every step of the way – both pre- and post-operatively.

When it comes to successful outcomes, Albany Medical Center stands apart from other state hospitals in our surgical treatment of congenital heart defects. According to New York's Department of Health, Albany Medical Center has the lowest mortality rate in the state for surgery performed on infants and children with congenital heart disease.

As the chart on the right summarizes, our risk-adjusted mortality rate was 1.96 compared to the next-best rate in the state of 3.18 at Columbia Presbyterian-NYP for the four-year period 2002-2005 monitored by the state. The average mortality rate for the 15 centers offering this specialized surgery was 4.08. During the four-year period, 315 surgeries were performed at Albany Medical Center with 6 deaths.



Hospital Risk-Adjusted Mortality Rates (RAMR) for Pediatric Congenital Cardiac Surgery in New York State, 2002-2005 Discharges*

(Listed: Top Six of 15)

Hospital	Cases	Deaths	RAMR
Albany Medical Center	315	6	1.96
Columbia Presbyterian-NYP	1807	74	3.18
Weill Cornell – NYP	237	5	3.27
Strong Memorial Hospital	533	24	4.09
Univ. Hosp. – Upstate	345	18	4.32
Westchester Medical Center	238	15	4.74

* Taken from http://www.health.state.ny.us/nysdoh/heart/pediatric/docs/pediatric_congenital_cardiac_surgery_2002-2005.pdf

Fetal Echocardiography

Albany Medical Center's focus on cardiac care begins at the earliest stages of life. Early detection and treatment enable children with congenital heart disease to achieve the best long-term outcomes for their condition. At Albany Medical Center, early detection starts with a fetal echocardiogram – a sonogram performed on the fetal heart and vascular system. Albany Medical Center's pediatric cardiologists perform over 280 fetal echocardiograms per year.

This safe, non-invasive procedure analyzes the fetal heart for congenital heart abnormalities, fetal dysrhythmias and cardiomyopathies. This test allows us to identify critical heart lesions that require specialized planning and treatment prior to and at delivery of the child.

Our cardiologists and patient care team keep families informed, discussing the risks of having a baby with a heart problem and explaining the purposes and limitations of the fetal echocardiogram. Families also receive detailed information about the diagnosis and treatment of any identified heart problem, and they are oriented to the hospital environment.

Referring physicians always receive an immediate response to referral requests and prompt study results. Study results include a detailed report of the fetal heart, including structure, function and rhythm. We also collaborate with the primary obstetrical caregivers in the coordination of prenatal, delivery and postnatal management, as well as organize medical and surgical management of the neonate.



“We put our full trust in Albany Medical Center. It was our home away from home. The staff made everything as comfortable as possible.”

— Kristine Barth

A Happy Ending for the Barth Family

Little Kaelyn Barth was still in-utero when her parents received the disconcerting diagnosis that their daughter had a congenital heart defect. The condition, called hypoplastic left heart syndrome, is lethal in the first days to weeks of life if unrecognized. Because Pediatric Cardiologist Dr. Eric Spooner had performed a fetal echo and made the diagnosis on Kaelyn, however, her prospects were very good. Kaelyn's parents remained optimistic, “We put our full trust in Albany Medical Center. It was our home away from home. The staff made everything as comfortable as possible.”

When Kaelyn was delivered at Albany Medical Center in 2003, she was readily stabilized by a multidisciplinary team in the Children's Hospital. Led by Pediatric Heart Surgeon Dr. Neil Devejian, the team completed a series of three high-risk reconstructive operations on the infant, all of which turned out beautifully. “Kaelyn is with us today primarily because of her great strength as a patient,” said Dr. Devejian, “but also because her mom received sound medical advice from her OB-GYN to get tested as early as possible.”

Kaelyn's story proves that recent advances in Albany Medical Center's fetal echo program – combined with highly sophisticated surgical capabilities – can successfully treat congenital heart disease, enabling children to lead healthy, stable lives.



Cardiac Catheterization

The Congenital Heart Program offers a full range of diagnostic and interventional cardiac catheterizations for newborns, infants, children, adolescents, and adults with congenital heart disease. Our advanced team performs these procedures in a state-of-the-art biplane facility utilizing the most advanced tools and technology available, always tailored to the needs of individual patients, and with an extremely low mortality.

Many advances have been made in recent years to successfully treat certain congenital heart defects by non-surgical catheterization-based procedures. Albany Medical Center has contributed to these advances by actively participating in multi-center clinical trials. A wide variety of devices, balloons, coils, plugs, and stents are now routinely used to close congenital defects such as atrial septal defect and patent ductus arteriosus, and to open congenital obstructed vessels and valves such as coarctation of the aorta, pulmonary artery stenosis, pulmonary valve stenosis and aortic valve stenosis. Approximately 75% of cardiac catheterizations for congenital heart disease are interventional in nature.

Our team has the largest experience in Upstate New York with device closure for atrial septal defect both in children and adults, and with device closure for patent foramen ovale in adults with cryptogenic stroke. Treatment of congenital heart defects by cardiac catheterization offers patients the advantages of a very short hospital stay and rapid recovery.

Reasons to Refer Patients for a Fetal Echocardiogram

Fetal Indications:

- Suspected abnormality of fetal heart on screening ultrasound
- Fetal myocardial dysfunction, including hydrops fetalis
- Fetal arrhythmia
- Difficult to image fetal heart
- Fetal chromosomal abnormality
- Any non-cardiac fetal defects
- Intrauterine growth retardation
- Polyhydramnios
- Twin-twin transfusion syndrome

Maternal Indications:

- Diabetes mellitus
- Use of suspected teratogen
- Exposure to specific viral infections (e.g., rubella, parovirus)
- Lupus, seizure disorder, PKU, or other illness that may affect heart development
- Advanced maternal age (selected cases)

Family Indications:

- Parent history of congenital heart disease
- History of congenital heart disease in previous fetus or child
- Relative with history of congenital heart disease
- Prior miscarriage of unknown etiology (selected cases)
- Self-referral for additional concern

Adult Congenital Heart Disease

As medical and surgical treatments for congenital heart disease have advanced over recent years, the rate of survival has increased. The Congenital Heart Program at Albany Medical Center specializes in caring for adults who were born with congenital heart disease.

Although many of our adult patients receive a diagnosis and treatment earlier in life, others are not diagnosed until adulthood. All adult patients with congenital heart disease need ongoing cardiac management because their conditions can lead to significant health problems — including heart failure, rhythm problems and valve disease.

Adults with congenital heart disease require care that is quite different from those individuals who acquire cardiac problems later in life. With physicians and a patient care team specifically trained in treating adults with congenital heart disease, Albany Medical Center has the expertise to excel in the field. As our patients age, we are able to provide a personalized continuity of care.

Advanced Imaging Expertise

Albany Medical Center provides the latest advanced diagnostic imaging services for the evaluation of congenital heart disease. Our experienced staff utilizes cutting-edge techniques to achieve the highest levels of accuracy and precision in diagnosis and treatment.

Our congenital heart patients have access to a full range of imaging procedures. This includes Magnetic Resonance Imaging (MRI), which produces very detailed images and allows the ability to measure blood flows and cardiac function. Our patients also have access to nuclear medicine, which utilizes minute amounts of radioactive tracer to accurately measure heart muscle function and blood flow in various chambers and vessels.





Pediatric Cardiac Anesthesiology

The field of pediatric anesthesiology has evolved dramatically and become increasingly specialized. Accordingly, Albany Medical Center offers the services of a team of fellowship-trained pediatric anesthesiologists. These skilled specialists provide anesthesia services tailored to children with congenital heart disease.

Prior to surgery, a patient's health is carefully evaluated for any coexisting medical conditions that may lead to further complications. Appropriate techniques and strategies are used to ensure a smooth and safe anesthetic. During and after the surgery, our experienced pediatric anesthesiologists help manage pain and sedation and are available to provide consultation with critical care and respiratory colleagues as needed.

Pediatric Critical Care (Post-Operative Care)

Our post-operative care team is comprised of board-certified pediatric intensive care physicians who provide in-house, around-the-clock coverage. Additionally, a core team of specially trained nurses at the Children's Hospital of Albany Medical Center is dedicated to providing the best care for infants, children and adolescents with congenital heart disease.

Tele-Medicine

Using broad-band Internet connections between selected outlying hospitals, Albany Medical Center physicians have the ability to work with referring physicians. Tele-medicine links, including echocardiograms and other modes of diagnosis, allow immediate attention to patients – no matter where they are and no matter the time of day. This ensures timely and accurate diagnosis, which is important when every minute counts for a sick newborn or child.





Transportation

At Albany Medical Center, patients deemed medically suitable for transfer have access to a pediatric ambulance as well as immediate air transportation. Young patients transferred to Albany Medical Center are directly transported to the Children's Hospital for immediate evaluation by our team of pediatric specialists.

Contact Us

The Congenital Heart Program at Albany Medical Center offers telephone consultation for all physicians and patients who require our assistance.

You can contact us at:

- 518.262.6683 For Pediatric Congenital Heart Surgeon*
- 518.489.3292 For Appointments and Administrative Calls with Medical Staff Pediatric Cardiologists
- 518.262.4660 For Emergency Air or Ground Transportation*

* Albany Medical Center

