

# Cardiac Center Celebrates 10 Years

## The Nemours Cardiac Center

Like most 10-year-olds, the Nemours Cardiac Center at the Alfred I. duPont Hospital for Children is full of energy, hope, ambition and persistence. But unlike the typical 10-year-old, the Center has achieved a level of success few institutions ever achieve.

The nationally and internationally renowned team is celebrating 10 years of specially designed service to infants and children with heart disease. The Center consists of a 10-bed cardiac intensive care unit, a 16-bed step-down unit, a state-of-the-art digital cardiac catheterization and electrophysiology suite and a dedicated operating room.

“When the Cardiac Center started, the model was an untested hypothesis,” said Christian Pizarro, MD, the Center’s Director to whom all key staff report. The Center remains focused on the evolution of the delivery of care and integrating all elements involved in caring for a child with heart disease. “This model achieves excellent outcomes, patient satisfaction and physician work.” In 2006, the Center exceeded the benchmark data for cardiac or thoracic surgeries from 57 participating centers in The Society of Thoracic Surgeons database; last year the complication rate for catheterizations was less than half the national benchmark data.

## Energy

The Center’s team of professionals works tirelessly for every child. The group of medical experts includes pediatric cardiac surgery, cardiology, anesthesiology and critical care, all solely dedicated to the special challenges of childhood heart abnormalities and the vigorous pursuit of the best care possible for Nemours’ patients.

These experts collaborate every day with nurses, technicians and social workers to offer the most up-to-date and holistic care available to children with cardiac problems. The patients’ parents are an active and crucial part of the healing process and have access to in-house accommodations within the Center allowing them to participate in the treatment of their children.

The cooperative and open environment has produced an efficiency yielding tremendous results. “The teamwork allows for real-time efficiencies,” said Samuel Gidding, MD, Chief of Cardiology. “For example, if at 1:30 p.m., two surgeons and another physician look at test results for a patient, they can work with the scheduler, tell the parents what we’re doing, update the nurse practitioner and see the anesthesiologist. So, by 2:45 p.m., everything is done. The whole thing flows.”



To help parents avoid undue anguish and provide hope, the Center employs a psychologist and social worker. The one-on-one emotional support assists families with seemingly overwhelming responsibilities.

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Russel Raphaely, MD



The energy of the team reaches beyond the doors of the AIDHC. The team members are an accomplished group within their specialties serving in national positions across the country. Additionally, the Center partners with community physicians so care is seamless from the hospital to outpatient and affiliated hospital environments in a manner exemplifying a Nemours integrated system of care.

## Hope

Like all Nemours employees, the team members at the Center aspire to excellence. This group transformed these aspirations into a model of care that changes the lives and restores the hopes of children and their families every day—no small wonder their patient satisfaction scores are among Nemours/AIDHC’s highest.

While the Center’s team knows a child’s heart, the members understand that the parents know their children. The parents are the most important source of a child’s emotional comfort. Through careful design, the Center provides an unparalleled opportunity for the family to remain together during a child’s hospitalization.

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The Center’s psychologist sees all patients, goes on rounds with the physicians and attends clinical conferences. This added service helps inpatient and outpatient cardiology patients deal with associated pain and helps parents manage stress.

The team’s social worker “holds the family’s hand during the procedure,” said Eric Weis, the Center’s administrative director. “She goes into the OR, goes into the cath lab and reports back to the parents. The parents just love her.”

“These features are very appealing to parents—the efficiency, the familiarity, the comfort of the arrangement where they can stay with their child,” said Weis.

## Ambition

“The Center’s team is convinced that virtually all forms of childhood heart disease—even the most complicated—can be treated and that early intervention achieves the best outcome,” according to Russell Raphaely, MD, anesthesiologist/intensivist and Co-Director.



Left to right: Cardiac Surgeon and Center Director Christian Pizarro, MD, discusses a case with Anesthesiologist and Co-Director Russell Raphaely, MD, and Cardiology Chief Samuel Gidding, MD.

“In addition to first-class open-heart surgery, the Center’s model includes modern approaches to heart abnormalities, freeing young patients from a lifetime of medications,” an understatement considering that at one time many of these now common procedures were somewhat miraculously life-saving. A new Cardiac Catheterization Lab at the Center will feature state-of-the-art imaging capability to improve precision, lower exposure to radiation and enable the surgeon and interventional cardiologist to work

together more effectively during surgical procedures.

A “hybrid procedure” (open-heart surgery with catheterization) has become common at the center for

complex cases. The major motivation of improved cardiac catheterization is avoiding surgery. Catheterization-assisted procedures have replaced—

in many cases—open-heart or open-chest surgery. The process improves the outlook for scores of children with congenital heart disease and minimizes their discomfort and hospital stay.

Only a handful of centers in the U.S. offer these procedures. In 2007, the Center performed 277 catheterization procedures and another 310 cardiac surgeries.

This innovative approach to cardiac care along with physician education and community-based efforts has helped the Center move away from the basic practice model. “We’re trying to get involved and impact the overall health of the community, rather than just an individual patient,” said Dr. Gidding.

Determined to achieve more, the Center also provides preventive cardiology. These services have grown in importance over the last several decades as professionals recognized that atherosclerosis, or hardening of the arteries, has its origins in youth.

