

Innovations in Cardiology & Heart Surgery



*Rady Children's - A comprehensive system
focused solely on children.*



PEOPLE

Dr. Ratnayaka brings expertise in interventional MRI



Kanishka Ratnayaka, M.D., a recognized expert in pediatric/congenital interventional cardiac catheterization and interventional cardiac MRI, recently joined the Division of Cardiology at Rady Children's Hospital-San Diego. He is also an associate clinical professor of pediatrics at UC San Diego School of Medicine. Recruited to help build the Hospital's interventional MRI program, he will play a key role in bringing radiation-free procedures to children in San Diego and building a new MRI-Cath lab suite.

Dr. Ratnayaka's clinical practice focuses on congenital and structural heart interventions. For the past decade, he has been part of the National Institutes of Health team creating the new field of interventional cardiac MRI. During this time, he became the principal investigator for a research program that successfully performed clinical trials of radiation-free cardiac catheterization guided by real-time MRI and X-Ray fused with MRI. He has authored over 35 peer-reviewed manuscripts and has been invited to give numerous plenary talks on these topics for organizations including the American College of Cardiology, American Heart Association and the Society for Cardiovascular Magnetic Research.

Dr. Ratnayaka's other research work includes device development for novel applications, bioabsorbable stents for pediatric use, invasive pericardiology and fetal cardiac MRI. He holds several patents and has won many awards for his original research.

[Learn more about Dr. Ratnayaka and see his publications.](#)



PROGRAMS

Adult heart disease program offers board-certified expertise

In late 2015, a sub-board certification examination for adult congenital heart disease (ACHD), administered by the American Board of Internal Medicine, was developed and offered for the first time. With this certification, Rady Children's Adult Congenital Heart Disease Program now has the only board-certified physicians in ACHD care in San Diego, Imperial and Riverside counties: [James C. Perry, M.D.](#), and [Howaida El-Said, M.D., Ph.D.](#)



innovation
belongs in every moment

Along with this expertise, the ACHD Program offers a full spectrum of care, including all required interventional catheterization, electrophysiology, imaging and surgical procedures. Patients seen in the program are age 18 or older and born with heart disease. The program's cardiologists are uniquely qualified to care for these patients, as they are knowledgeable about the ongoing needs of adults with congenital heart disease throughout their lifetimes.



Dr. Perry

In 2015, Rady Children's had nearly 1,000 outpatient visits for these patients. Most come from Southern California and Hawaii, along with being referred from outside the region.

The program's research efforts involve both clinical research studies and advocacy programs for adults with congenital heart disease. Several innovative basic science research projects related to ACHD topics, in partnership with the UC San Diego Department of Bioengineering and the Department of Mechanical and Aerospace Engineering, are funded by the National Institutes of Health and industry and are well underway.



Dr. El-Said

For more information about the program and other cardiology services, contact the Cardiology Division at 858-966-5855 or [visit our website](#).

INNOVATIONS

High-tech VAD advances heart failure treatment in children

Rady Children's Heart Institute will be using a miniaturized ventricular assist device to treat patients with end-stage heart failure.



HeartWare® system

The HeartWare® Ventricular Assist System features a small circulatory assist device designed to be implanted next to the heart. Over the past few years, this device has been primarily implanted in adults and is now being used in select pediatric hospitals across the country.

With this cutting-edge technology, patients can avoid the abdominal surgery generally required to implant other ventricular devices. More importantly, the device is portable, so children can go home with it while they wait for a heart transplant.

[Rakesh Singh, M.D., M.S.](#), director of the Heart Failure, Mechanical Circulatory Support & Transplantation Program at Rady Children's, presented his research on national outcomes of the HeartWare® system in children at the 2014 annual meeting of the International Society of Heart and Lung Transplantation in San Diego. Based on its superior outcomes, Rady Children's purchased the device and is ready to use it.



RECOGNITION

Rady Children's earns highest rating for cardiac surgery

Rady Children's cardiovascular surgery program recently received a three-star designation from the Society of Thoracic Surgeons (STS), placing it in the highest quality tier for cardiac surgery performance. The designation was obtained for the program's 2015 Fall Report and is based on the STS Congenital Heart Surgery Database (CHSD) mortality risk model.

STS uses a comprehensive rating system that allows for comparisons regarding



The Society of Thoracic Surgeons

the quality of cardiac surgery among hospitals across the country. In the current analysis of national data, 8.5 percent of the hospitals (10 of the 117 facilities participating), received the three-star rating. The analysis covers the period from July 2011 through June 2015.

The STS CHSD is the largest database in North America dealing with congenital cardiac malformations. The CHSD contains more than 373,000 congenital heart surgery procedure records and currently has more than 800 participating physicians, including surgeons and anesthesiologists.

[See Rady Children's cardiovascular surgery outcomes.](#)



Learn more at [RCHSD.org](#)