

Cardiac care branches out

Alumnus creates program to improve cardiac care for rural and underserved patients

Written by Karen Carlson • Photography by James Hawker

For a heart attack patient, every moment counts. From the time 911 receives a call to the time a physician can diagnose and administer treatment, precious seconds, minutes, maybe hours tick away.

For those lucky enough to live within a few miles of an equipped hospital, care comes faster. But for patients living in rural and underserved areas, more minutes from health professionals means a longer wait for health care.

Frank Aguirre, M.D., '80, knew there was a better way.

Combining effective care, efficient costs and a caring attitude, Dr. Aguirre has brought together everyone from executives to residents and researchers to create better health care for the underserved cardiac patient.

Dr. Aguirre, an interventional cardiologist at Prairie Cardiovascular and a clinical professor in the Division of Cardiology at SIU School of Medicine, received the Distinguished Alumni Award at this year's graduation ceremony. Among his many accomplishments, he was noted for serving multiple Illinois communities through this unique program.

Studies have shown that heart attack patients treated with stents have better outcomes than patients treated with clot-busting medicines. But many rural areas don't have access to the cardiac cath laboratories needed to perform the procedure. Dr. Aguirre saw this problem, and in 2004, he developed The Stat Heart Program, modeled after a Minnesota system and European models. This program has standardized the process, allowing central Illinois patients to be swiftly transported to the Springfield hospitals to have the



Dr. FRANK AGUIRRE
Distinguished Alumnus, 2008

balloon procedure.

This innovative idea brought together the leaders at the two Springfield hospitals, Memorial Medical Center and St. John's Hospital, as well as the leaders of Prairie Cardiovascular, who all agreed to provide funding for this important program to improve patient care.

"The most satisfying thing for me is that instead of constant competition between the hospitals, the program brought people together for a common cause," says Dr. Aguirre, who is president-elect of Memorial Medical Center's medical staff.

"Dr. Aguirre is an excellent clinician and teacher and has made a significant difference in the provision of patient care — not only at Memorial Medical Center, but also throughout the central Illinois area," notes Ed Curtis, executive vice president and chief operating officer of Memorial Medical Center.

Branching out from the "hub" in Springfield, six original hospitals were included in the program: Lincoln, Pana, Taylorville, Jacksonville, Litchfield and Effingham. Care was standardized, a helicopter trans-



port system was put into place, and a model of regionalization of myocardial infarctions (MI) care was created. The system has cut in half the travel time to Springfield, averaging about 28 minutes. The result? "Patients with heart attacks are living longer, have lower complication rates, and their length of stay in the hospital is a day shorter," Dr. Aguirre says. What about the cost? "Despite utilization of high-ticket items in health care, it's a little bit cheaper the way we're doing it now," says Dr. Aguirre, who had his data reviewed by a health-care economist at Harvard. "We've standardized the process."

Only four models of this kind of care in the United States have been published. Dr. Aguirre's model has received international attention, and it was published in the March 2008 issue of *Circulation*. This model will be used as a template for the American College of Cardiology and American Heart Association to develop protocols for urban and rural communities.

Dr. Aguirre has expanded The Stat Heart

Program to another "hub and spoke" system based in Carbondale. He has plans to help EMS first responders diagnose heart attacks earlier. "We think that model will be the foundation for all early health-care responders — whether for trauma, stroke care, or bioterrorism," he says. "Developing regionalization of health care with first-care responders would be an extension of this heart attack program and have a major impact on health care."

Dr. Aguirre is dedicated to helping people access health care. "I grew up in Chicago with parents who didn't graduate from grade school, so the impact of health care hits home to me," he says. "My generation of doctors are good at new methods of diagnosis and developing new drugs, but we haven't done a very good job to make sure the people who need it are getting it. We need to make sure health care is available for everybody. That's the challenge of the next generation of doctors."

Another challenge Dr. Aguirre focuses on is making sure that patients get the bang for their buck. "Whenever we develop a new technique or device, we may be paying more for it, but we need to ask ourselves how are patients going to pay for it?"

The alumnus encourages his students and residents to make a difference in the community. "This is a changing time, and it's a difficult time for health-care providers, one with unique opportunities for new challenges, whether that is incorporating time in practice for clinical research, providing an extra hour of your day to provide care to one uninsured patient a week or providing non-medical services to your community."

Nominating Dr. Aguirre for the Distinguished Alumnus Award, David Steward, M.D., professor and chairman of the SIU Department of Internal Medicine, praised Dr. Aguirre for clinical teaching, research, and the Stat Heart Program. "Through his dedicated and imaginative leadership, this program is reaching its potential to combine the best features of the education and research initiatives at SIU with the remarkable clinical cardiology service provided by Prairie."

Although in private practice at Prairie, Dr. Aguirre's passions are academics and research. He has been noted for his clinical research activities and collaborations in basic science research. He enjoys working with SIU residents to teach them how to collect data, participate in publications, and present their findings. At the SIU School of Medicine, he serves on numerous committees and is working on a team-building program at the Association of American Medical Colleges to develop SIU's clinical research initiatives.

"SIU provided a very unique background for medical school," says this year's distinguished alumnus, who reflects the very attitude for which he praises the School of Medicine. "I came here because of the environment; the people were so nice, they made you feel like they wanted you. And that hasn't changed." ●●●