Testing athletic hearts

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By DENISE M. BARAN-UNLAND

When Candice Kubeck was a student at the University of Miami, a screening EKG detected an enlarged heart in an athlete.

"He was not able to play football anymore," said Kubeck, head athletic trainer at Joliet Junior College, "but the test, basically, saved his life because it caught the cardiomyopathy in time."

The Midwest Heart Foundation finishes up Young Hearts for Life electrocardiogram screenings at the Neuqua Valley High School freshman campus in Naperville. The Indian Prairie School District had the screenings that specifically looked for hypertrophic cardiomyopathy.

(Sun-Times News Group photo)

In June 2008, a junior from Waubonsie Valley High School collapsed and died while he was playing in an AUU basketball tournament at Plainfield South High School.

Nine months later, the Indian Prairie School District in conjunction with the Midwest Heart Community Foundation started a process of screening students at both of the district high schools, Waubonsie Valley and Neuqua Valley.

Dr. Barry J. Mason, director of the Minneapolis Heart Foundations, estimates that 125 U.S. athletes, ranging from ages 8 to 35, die each year from sudden cardiac arrest. Some people think that this number can be drastically reduced -- maybe even eliminated -- by adding a screening EKG to the routine sports physical.

'Worth the cost'
"From a parent's point of view, if you have saved one child's life, it's pretty much worth the cost," said Dr. Dominick Stella, director of the cardiac catheterization laboratory at Adventist Bolingbrook Hospital.

"My personal opinion is that if you spend $1 million dollars and save three adolescent lives, that million dollars was worth spending. But our society does not subscribe to a similar method of thinking. And it is obviously very expensive to screen a large number of athletes to find a condition in only a very small percentage of people," Stella said.

Although the expense varies, an EKG can cost $100, while the more accurate echocardiogram can cost $1,200, said Dr. Craig Asher, a cardiologist at the Cleveland Clinic in Weston, Fla. But in addition to the cost of the EKG comes the challenge of finding the appropriate cardiologist who can read it.

"Most adult cardiologists will not read EKGs for children under 18 because they are not trained to do it," Stella said. "You may have to find a pediatric cardiologist to read that EKG."

Stella added that several companies in the Chicago area do offer screening EKGs and echocardiograms for young athletes.

"The parents typically pay for it," he said, "and there is no mandate that says they have to have it done."
Efforts in DuPage
Since the creation of the Midwest Heart Community Foundation in 2006, trained community volunteers have performed free screening EKGs on more than 22,000 high school and college-age students in the DuPage county area.

So far, they have found three youths with long QT syndromes (a heart rhythm disorder) and two with cardiomyopathies, both of which can contribute to sudden cardiac arrest in young athletes. And, not all of the students screened participated in traditional athletics. Some are dancers and some belong to the school's drill team.

"Who pays for it? The community pays for it," said Dr. Joseph Marek, cardiologist with Midwest Heart Specialists. "We've gotten physicians to donate their time. The community donates money and time. Manufacturers have donated money.

"It violated my sense of American spirit to say, 'Oh, that's too difficult to do.' People today know how to use computers. They know how to program their cell phones. Why can't they learn to do an electrocardiogram?"

Sometimes, the schools themselves, such as the University of Georgia, assume the cost. Kubeck wishes JJC was one of them.

Other measures
"Any athletic trainer would tell you that, in a utopian world, every student athlete should have an EKG," Kubeck said. "I've worked at some bigger universities that can afford to do these for their freshmen, but we can't. For us, it's not very cost effective. We are very fortunate we are able to do mass physicals and not charge the students because we have doctors who donate their time."

However, even when a school cannot offer a screening EKG, it takes other measures to insure the safety of its athletes.

"We do a very thorough job with our physicals, and even the cheerleaders must be cleared because of all the running and the jumping," said Dan Schumacher, director of athletics at Lewis University in Romeoville. "All of our coaches know CPR and basic first aid, and we have a defibrillator at every athletic site."

Nevertheless, Schumacher does wish the university could afford to offer screening EKGs, too.

"To be honest with you, an ounce of prevention is worth its price in gold," he said, "but, unfortunately, some things are just not financially feasible at this time."

Although the University of St. Francis in Joliet only requires a physical, the school does recommend screening EKGs. When students take advantage of the physical the school offers through Sportslink (www.sportslinkusa.com), the student receives both a physical examination and a Snapshot Echo, a quick picture of the heart.

"The reason we went with the company is because of the heart scan," said Art Campus, head trainer. "The athletic director here, Dave Laketa, is very proactive. He wants to prevent a catastrophe before it happens."