



## The gift of life: Knights donate defibrillator to St. Thomas Aquinas

By JEFF GRAHAM

Generally speaking, most high school students don't have heart problems, but David Badger, a Grade 10 Argyle High School student, tragically died after suffering a cardiac arrest during gym class in late October.

His death sent chills through the North Shore community, so much so that it prompted St. Thomas Aquinas Regional Secondary School to altogether rethink how they administer first aid.

The school recently obtained an automatic external defibrillator, or AED, that is designed to shock the heart back into functioning. The unit was donated to the school by the local Knights of Columbus, and on Nov. 14 students and teachers were trained how to administer first aid and use the device.

"Sudden cardiac arrest takes more lives than breast cancer, lung cancer, and automobile accidents combined," said Chris Metcalfe, President of Mediquest Technologies, the company that obtained the unit and the training for the school. "Not too many people are aware of that."



Metcalfe says the councils were shaken into action after the death of the Argyle student.

"I had mentioned at a meeting that this had happened, and that we'd seen this happen in the U.S. I was concerned that something like this could happen at STA; my own three kids graduated from STA."

"I said I could get a unit on a donation basis from the manufacturer, and that the Knights could get it for the school. Grand Knight Marius Soska of Lions Gate Council is the guy that really spearheaded this thing. Without him this wouldn't have happened."

One of the paramedics attending Badger was himself a knight, and he spoke passionately about the need for facilities to equip themselves with AEDs.

According to Occupational Health and Safety Canada, 95 per cent of people who suffer cardiac arrest with only normal resuscitation die, whereas if an AED is used in the first few minutes as many as 75 per cent of the victims survive.

"For every minute that goes by, there's a 10 per cent drop in survival," said Metcalfe. "In North America, we know that more than 1,000 people die each day from cardiac arrest, and we could save 700 people every day if we added these devices where they're needed."

Sudden cardiac arrest is caused by fibrillation of the heart: the tissues that generate electrical signals that regulate the heartbeat malfunction and cause the heart to flutter, or fibrillate. A way to stop the heart from fibrillating is to apply an electric shock to the malfunctioning tissues.

"It all relates to how long it takes to deliver that shock," continued Metcalfe. "When it's delivered within three minutes there's a 70 per cent survival. That's why you can't wait for the ambulance or fire department; that's why you need the device on the scene."

Defibrillator technology has greatly advanced greatly in the last few years, as today they weigh about four pounds and are the size of a large book. Newer AED's generally come equipped with three simple functions: on, assess, and shock.

The units are simple enough that most people can be trained in their use very quickly, and the machine itself is user friendly. For example, once the shock pads are strapped on, the computer built into the machine assesses the victim's heart rhythm and tells the first aider whether defibrillation is necessary, and then administers a shock.

"I'm working with the manufacturer to set up some sort of program where the schools and churches would have one of these units," said Metcalfe. "The unit itself costs under \$2,000."

According to Child and Family Canada, more than a third of Canadian deaths each year are attributed to coronary disease, making it the leading cause of death in Canada. The organization goes on to say that a human heart will cease beating roughly four minutes after breathing stops, and permanent brain damage occurs four to six minutes after breathing stops.

Survival rates of individuals suffering cardiac arrest decrease 7 to 10 per cent for every minute defibrillation is delayed. Furthermore, the average response time of an ambulance in Canadian cities is eight to 12 minutes, making the purchase of an AED a good one for just about any facility.

"It's not just about having a box, it's also having a program, and Mediquest does the whole program," said Metcalfe. "People should know you don't just buy a box and hang it on the wall; you need to know how to use it."

More information is available from Chris Metcalfe, [aed@shaw.ca](mailto:aed@shaw.ca), 604-998-1200, or [www.mediquest.ca](http://www.mediquest.ca)



Metcalfe, who is in the business of saving lives with Mediquest, was instrumental in obtaining the unit for STA. Mediquest trains people in how to perform CPR and how to use the AED units.

"My whole purpose in doing this is that if this happens at STA, they will be as prepared as they can be."

The purchase of the unit was a joint effort of the St. Edmunds Council, 13252, the fourth degree St. Eugene De Mazenod assembly, 2458, and the Lions Gate Council, 7095.