

Paramedic expert says 'base' hospital needed

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SANTA CRUZ — Only one hospital should serve as base hospital when countywide paramedic service begins early next year, says the director of Seattle's Medic 1 program, the country's premiere advanced life support system.

"The politically easy solution would be to give it (base designation) to everyone," said Dr. Michael Copass, medical director of the emergency trauma center at Seattle's Harborview Medical Center.

But, he said, better control can be maintained over a paramedic program by designating just one base hospital. The base hospital is responsible for issuing orders to the paramedics for treatment at the scene of an emergency.

Even though Seattle is a big city with 18 hospitals, only one — Harborview — serves as base station for Medic 1, Copass said.

One emergency room doctor at one hospital is responsible for all the emergency care provided at any one time. And, that care is overseen by one program director, he told area emergency medical care providers at a meeting this week.

All three Santa Cruz County hospitals — Dominican, Community and Watsonville Community — have applied to serve as base hospital for the new program.

Dr. George Wolfe, county health officer, said his office will make a recommendation to the county Board of Supervisors, in October. The Board of Supervisors then will decide which and how many of the hospitals should serve as the base.

The cost of equipping a hospital emergency room and training staff to serve as a base station is estimated at about \$150,000. The designation, Copass said, does not guarantee new patients in return.

In fact, he said, Harborview Hospital treats less than 10 percent of the heart attack victims brought in by the Seattle paramedics. Patients have the right to select the hospital they wish to be taken to.

"The argument that the base hospital benefits more than the others is emotional," Copass said.

Since 1978, Dominican Hospital has served as base hospital for Aptos Fire District's paramedic program. The Aptos Fire program will be incorporated in the new countywide system.

All other areas of the county will be served by privately-operated paramedic ambulances. Santa Cruz Ambulance will serve the north county and A-1 Ambulance of Watsonville the south county area.

Seattle's program is run by the Fire Department. Medic 1 is based on a layered response plan, which calls for the nearest fire engine, medical aid car and paramedic unit to respond to the medical emergency.

In Seattle, there are 40 engine companies, seven aid cars and five paramedic units.

Seattle has become the standard by which all paramedic programs are compared because of its "save" rate. Seattle paramedics, Copass said, see about 300 clinically dead patients per year. "We resuscitate 50 percent of those victims," Copass said. Of those resuscitated in the

field, 26 percent live to be discharged from the hospital. That percentage is higher than any other major paramedic program.

In areas without paramedic programs — such as Santa Cruz — a person's chances of surviving full cardiac arrest are about 10 percent.

The reason for Seattle's success rate is twofold: rapid response and citizen knowledge of CPR.

Copass said that in the first year (1969) of the Medic 1 program, paramedics resuscitated about 30 percent of full cardiac arrest victims and that about 10 percent of those resuscitated lived to leave the hospital. During that first year, only an aid car and paramedic unit were dispatched to calls. The aid car's response time averages 2.8 minutes and the paramedic unit's response time averages 7-plus minutes.

"We thought we could make ourselves even better if we could get there faster," said Copass. So, fire engines were also dispatched to medical calls. Fire engine response time in Seattle is 1.75 minutes.

"When we started sending the engine companies in 1971, we doubled the long-term survival rate," Copass said.

The engine companies, he said, are the workhorses of Seattle's paramedic system.

The other key to success, Copass said, has been public education in such areas as understanding warning signs of heart attack and other sudden illness, learning to dial 911 for emergency help and learning how to perform CPR until the fire department arrives.

Copass said the goal was to teach CPR one-fifth of Seattle's 500,000 citizens. Today, he said, in three out of five cases, a citizen initiates CPR.

"If a citizen begins CPR, the likelihood of survivability is doubled," he said.

Seattle's paramedics receive about 3,000 hours of initial training. "We expect our paramedics to be as competent as third-year medical students," he said. But, unlike medical students, paramedics in Seattle are not educated; they're trained in the field.

The paramedics are trained well, he said. To illustrate his point, Copass said the complication rate from paramedics starting IVs on patients is about 1 percent. The complication rate on IVs started by interns in hospitals is about 5 percent, he said.

Santa Cruz County's new program will be based on a layered response, said Hiatt. Because of geographics, the nearest fire engine will be expected to arrive first on the scene.

Paramedic units will be stationed in Watsonville, on 41st Avenue, off Ocean Street in Santa Cruz and at Highlands Park in Ben Lomond. Again, the nearest unit will be dispatched.

Paramedic response times, Hiatt said, are expected to be within the state's 10-minute standards in most areas of the county.

Response times will be slower in more remote parts of the county. Those areas, Hiatt said, will be targeted for citizen CPR training in an attempt to buy time before the arrival of the fire department and paramedic unit.