CUMBERLAND TIMES-NEWS
CUMBERLAND, MD
MONDAY 30,011
OCT 13 2003
Capital Clipping Service
36 W7
.xz3c. 8 XX....

Public gets access to defibrillators

It's a readily available tool EMTs can use to save heart-attack victims

Wesley Haines/Times-News

Hunter Brakeall runs a test on an Automated External Defibrillator defibrillator during a recent demonstration at the Riverside YMCA in Cumberland.

HEATH E. COMBS
TIMES-NEWS STAFF WRITER

CUMBERLAND —A man is walking through the mall when his heart stops.

He falls to the ground, but there's an emergency medical technician in the mall, and on a nearby wall — an Automated External Defibrillator.

The EMT places two AED pads on the man's chest. He says "clear," and the man's chest bounces up.

What seems like an episode of "ER" is becoming a reality for Allegany and Garrett counties. There are now three public-access defibrillator stations in Allegany County, located at the health department, detention center and Riverside YMCA.

STATE OF MARYLAND

Public placement of an AED is designed to make the equipment a visible tool in fighting cardiac arrest, according to Lisa Myers, director of program development for the Maryland Institute for Emergency Medical Services Systems.

"The idea is that they (AEDs) are visible so people know that they're in there," said Myers.

In Garrett County, access to an AED is available at Wisp at Deep Creek Mountain Resort, the Garrett County Courthouse and Detention Center, and Flowery Vale Senior Center.

"To date we have 303 facilities in the state," said Myers.

Myers said defibrillation is vital to survival in cardiac-arrest patients. The American Heart Association lists defibrillation as third in four links to its Chain of Survival for cardiac arrest, Myers said. For every minute defibrillation does not take place in cardiac arrest patients, chances of survival decrease by 10 percent.

The first link, Myers said, is recognizing cardiac arrest; the second, CPR; and the fourth, advanced EMS. Taking out any links of the chain, he said, significantly decreases survival.

The American Heart Association reports that the majority of sudden car-

■ SEE **PUBLIC – 9A**

Public: *Access to defibrillators grows*

CONTINUED FROM 1A

diac-arrest deaths are caused by irregular heart activity. The heart stops beating in a coordinated rhythm. It also stops pumping blood, which deprives vital organs of oxygen. Unless the rhythms are restored, death results.

AED use is restricted to personnel trained to used them, according to Myers. She estimated the cost of an AED at $2,000.

For at least four years, the Riverside YMCA on Kelly Road has utilized a defibrillator.

"We have people trained and we expect we'll have to use it one day," said Hunter Brakeall. The AED is centrally located near the reception desk, ice arena, pool and wellness center, he said.

Brakeall said the defibrillator gives its operator verbal cues for when to administer shock, how to administer shock, and the machine can even detect when there's a problem with its setup.

The machine can detect whether CPR is necessary.

"There's hardly anything you can do wrong," said Brakeall.

Myers said public AED access helps cut down on distance and time problems that medics have for ensuring they reach the defibrillation window with patients.

Rural and urban medics deal with similar AED problems. Myers said because inner-city medics often travel through heavy traffic and up high-rise buildings to reach patients, local AEDs are a plus.

She said rural medics with few local hospitals and long distances to travel to reach rural homes can also be helped by local AE's.

"There can be a little bit of delay, and it can significantly increase a person's chance of survival," said Myers.

Myers said businesses that want an AED are responsible for obtaining them.

"It's a matter of people finding out and knowing it's available, whether it's appropriate for their company," said Myers.

The Sun 12/17/03

Police cars getting devices to aid heart attack patients

Baltimore police cars soon will be equipped with 140 defibrillators to help people suffering cardiac arrests, officials said yesterday.

The American Heart Association — which donated several thousand dollars this year to help the city purchase 50 of the devices — secured a $210,000 gift from the Harry and Jeannette Weinberg Foundation to buy the defibrillators, officials said.

Officers using the devices attach electrodes to a patient suffering cardiac arrest and flip a switch on the defibrillator, which monitors the victim's heart rate. The defibrillator tells the officer whether to initiate a shock to restore the patient's heart to its regular rhythm. The devices are expected to be in patrol cars by the end of February.

Man becomes year's

Spot.net

http://www.sunspot.net/news/health/bal-te.defibrillator12nov12,0,7584108.story?coll=bal-health-headlines

Public defibrillators may 'double survival'

Study tests use of devices in office buildings, malls, sports venues, schools

Associated Press

November 12, 2003

ORLANDO, Fla. - The first major test of public-access defibrillators found that placing the devices in office buildings and shopping malls and training ordinary people to use them can double the chances of surviving cardiac arrest.

Defibrillators have already become standard equipment, like fire extinguishers, in many airports, convention centers and health clubs. And while earlier studies suggest they are safe, there has been no clear proof until now that they actually increase survival.

Each year, about 250,000 Americans die from cardiac arrest, which can result from heart attacks, underlying heart disease or accidents, among other causes. While most such deaths happen in the home, about 20 percent occur in public places, and 95 percent of victims die before reaching the hospital.

Paramedics can shock victims' hearts back to a normal beat with defibrillators, but they rarely arrive in time. In fact, every minute spent waiting for a paramedic lowers the chance of survival by 10 percent.

The latest study was intended to see if putting automated defibrillators about the size of laptop computers into the hands of ordinary volunteers increases the chances of saving these people while the ambulance is on the way.

About 1,500 defibrillators were distributed to 993 sports facilities, shopping centers, entertainment venues, community centers, office buildings, factories, apartment buildings, transit centers and schools in 24 cities. About 20,000 volunteers who worked there took part. Half were taught to do CPR only. The rest were also shown how to work defibrillators.

After almost two years, there were 292 attempted resuscitations and 44 survivors - 29 among the volunteers with defibrillators, and 15 among those who did CPR alone.

Dr. Joseph Ornato of Virginia Commonwealth University in Richmond presented the results yesterday at a meeting of the American Heart Association in Orlando, Fla.

"The bottom line is we believe defibrillators in public facilities will double survival, if there are trained teams to use them," he said.

They also turned out to be extremely safe when used this way. The devices can detect whether someone truly is in cardiac arrest. In the study, they did not deliver any unnecessary shocks.

Dr. Raymond Gibbons of the Mayo Clinic said he hopes the results will persuade more businesses to install defibrillators.

"It potentially will have an enormous impact," Gibbons said of the study. "Hopefully over time this will save lives."

Epidemiologist Clay Mann of the University of Utah, who headed the project in his state, said the devices seem to be most useful in shopping centers, fitness clubs and other recreation areas where elderly people often congregate.

Most victims in the study were in their 60s and 70s. One disappointment was that while 15 percent of the defibrillators were placed in central locations in apartment buildings and gated communities, they were used in just one save.

A new federally funded study involving 7,000 people is testing whether providing the devices to families of heart attack patients will improve the chances of surviving cardiac arrest in the home.

The public-access study was sponsored by the National Heart, Lung and Blood Institute with contributions from the heart association and three defibrillator makers.

HERALD-MAIL
HAGERSTOWN, MD
SUNDAY 35,516
DEC 7 2003

Mortality rates drop as technology grows

5 Y 7 F B 1 cw fac. i. Md.

BALTIMORE (AP) — It's nine o'clock on a Saturday night when a 15-year-old boy with a bullet in his leg is rolled on a gurney into the R Adams Cowley Shock Trauma Center. More than 20 minutes have passed since he was shot in a drive-by shooting. The boy's eyes balloon with fright and his arms and legs tremble violently as a dozen doctors and nurses descend on him, carving his clothes off with scissors, searching for other injuries.

On this night, the boy is lucky. His lone wound is fairly straightforward, and he's in a place where dedicated life-savers wield some of medicine's most advanced tools.

At Cowley — and other trauma centers across the nation — leaping improvements in emergency medical technology are helping doctors save lives that, a few years ago, almost certainly would have been lost.

Most valuable are devices that swiftly offer detailed looks under the skin, be they portable ultrasound machines or thermometer-like oral probes that detect internal stomach bleeding.

For Dr. Thomas Scalea, Shock Trauma's chief physician, the more nimble and clearer-eyed inventions represent as radical a progression as the jump a century ago from horse-and-buggy to automobile.

"When I first got here (seven years ago) I'd sometimes say, 'Oh, that person's going to die.' Now, my expectation of who's going to die is very much different," Scalea says.

"I used to think there was a ceiling," he says. "There is no ceiling."

Since Scalea arrived at Shock Trauma, technology has transformed nearly every corner of the emergency room, most impressively in ultrasound and CT scan machines.

"Every patient, it's like a detective project. You've got to figure out what's wrong, and you don't have much time," Scalea says.

With blunt force injuries, which occur during auto accidents and falls and account for most trauma cases, a patient often has minor, if any, external bleeding; all the while, he or she could be bleeding to death internally.

Instead of inserting a catheter in the abdomen to blindly test for internal bleeding or using a 500-pound ultrasound machine that needs three people to maneuver and operate — the old methods — a 6-pound, brick-sized portable ultrasound now can detect bleeding in about 15 seconds.

It takes all of about 20 seconds for a bigger, stationary machine that travels a patient's length — it's called a helical CT scan — to provide doctors with a crisp, three-dimensional digital view of every part of the internal landscape, from the brain to the smallest artery.

The new "16-slice" CT machine, which looks like a large, white doughnut, rotates around a patient stretched out on a narrow table, capturing 16 images for every half-second cycle.

With the older CT scan, it often took more than an hour to see the result.

Doctors say it won't be long before they're wearing tiny ultrasound scanners around their necks, much as they now wear stethoscopes.

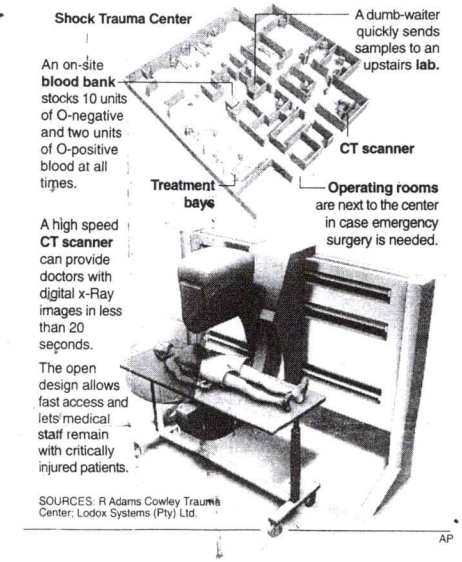
Joan Liddy, a nurse at Shock Trauma, has had a front-row view of trauma injuries for 16 years, so certain recent cases stand out as technology-enabled triumphs.

She remembers a 17-year-old boy whose car was broadsided by a dump truck about a year ago. It took about half an hour for emergency workers to pry him from the wreckage and get him to Shock Trauma.

Within about 10 minutes of his arrival, doctors had the result of a helical CT scan showing a tear in his aorta; five minutes later, they were operating, and the boy's life was saved.

Treating trauma with new technology

At the R Adams Cowley Shock Trauma Center in Baltimore every element – including a high-speed CT scanner – is configured to treat trauma patients with the speed necessary to save lives.



SOURCES: R Adams Cowley Trauma Center; Lodox Systems (Pty) Ltd.

AP