



NEWS RELEASE

ALABAMA DEPARTMENT OF PUBLIC HEALTH

RSA Tower 201 Monroe Street, Suite 914 Montgomery, AL 36104

Phone 334-206-5300 Fax 334-206-5520

www.adph.org

EMS brings technology and medications to save lives

FOR IMMEDIATE RELEASE

CONTACT:

Dennis Blair
(334) 206-5383

Time is critical in saving lives after a patient suffers a heart attack, and many patients in Baldwin and Mobile counties now benefit from a coordinated system of life-saving treatment. It begins when 9-1-1 is called and paramedics perform early 12-lead electrocardiograms (ECGs) while en route to the hospital.

Capt. Jack Busby of the Mobile Fire Department is enthusiastic about the advanced system that can mean the difference between life and death, depending on the patient's condition. He said, "Our firemedics bring the technology and medications of the emergency room to the patient's side."

ECGs are usually done in hospital emergency rooms to aid in the diagnosis of a heart attack and monitor heart rhythm. An early ECG saves precious minutes by allowing the patient to go straight from the ambulance to the cardiac catheterization laboratory where blocked arteries can be opened.

Medical authorities associate delays in receiving angioplasty with higher mortality in heart attack patients, and time to treatment should be as short as possible. As much as 40 minutes can be saved by having the ECG and medications prior to hospital arrival. It can take up to 10 minutes to perform the ECG in the emergency department plus 30 minutes call-back time for the catheterization lab team to arrive if they are not already in the hospital.

The American Heart Association and the American College of Cardiology recommend a 90-minute door-to-balloon coronary angioplasty time to restore blood flow to the heart. Time saved prior to hospital admission can help preserve the heart muscle.

"Ninety minutes is the national standard time, but our system in Baldwin County has greatly improved on that time," Jamie Hinton of Medstar Emergency Medical Service said. "We have it down to a science."

The following is an example of how the system works. In a recent situation in southern Baldwin County, a patient with chest pains phoned EMS at 1:30 a.m. and the 9-1-1 operator received pertinent information and instructed the patient to take an aspirin. After the EMTs arrived and set out for the hospital, they placed a 12-lead ECG monitor on his chest and transmitted the results to an on-call cardiologist. The inexpensive system used a Bluetooth connection to a cell

phone to send the results to a server. The server sent it out as a fax to the hospital. The medics placed the patient on oxygen, established two intravenous lines, and administered the appropriate medications.

Meanwhile at the hospital, the cardiologist, several nurses and technicians all mobilized to respond quickly. Just 39 minutes later the patient underwent a blockage-clearing procedure at the catheterization laboratory. Now recovered, the patient credited the team with saving his life by their early diagnosis and preparation.

While the technology to expedite 12-lead ECGs in ambulances has existed for a number of years, Springhill Medical Center in Mobile and the three facilities in Baldwin County (Thomas Hospital, South Baldwin Regional Medical Center and North Baldwin Infirmary) are among the hospitals in Alabama that use this effective system.

The approved cardiac catheterization lab in Baldwin County is located at Thomas Hospital in Fairhope, so patients from more distant areas of the county are first taken to the hospital closest to them. While remaining on their stretcher, they are treated with thrombolytic drugs to dissolve blood clots and then are sent directly to Thomas Hospital's cath lab.

Staff members from the hospitals meet monthly to help improve the system. When an issue that needs to be corrected arises, the cardiologists and others members of the coordinated team track it down and solve it.

Similar to the Baldwin County system, Springhill Medical Center provides continual feedback to the Mobile Fire Rescue Department to address any delays or other areas for improvement as well as celebrate successes. In a recent incident, Mobile Fire Rescue helped to cut the time from entering the hospital door to angioplasty time to a record of just 19 minutes. The Mobile Fire Department's quality assurance team has a direct line of communication to Springhill's cath lab. The interaction between both entities benefits all involved, but most importantly the patients and the care they receive.

"This enhances the quality of life for heart attack patients," Ann Eubanks, Springhill's Cardiovascular Service Line coordinator said. "We coordinate and communicate back to Mobile Fire Rescue how they do, because the times are an incentive to improve overall quality. We want to improve the outcome for the patient, and we couldn't do it without the EMS side."

Anyone with symptoms of a heart attack is advised to call 9-1-1 immediately and rely on the trained paramedics who will provide pre-hospital treatment and transport the victim to a hospital. By arriving by ambulance, patients can also bypass the emergency room. Heart attack patients should not drive themselves to the hospital and should only be driven there by someone else if absolutely necessary.