

Ambulances getting wireless technology

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SALISBURY — When every second counts in an emergency, Rowan County is using wireless technology to speed up and improve its medical response.

The communication system, which was installed about two years ago, turns the county's 11 ambulances and a few other vehicles into mobile hotspots.

Rowan County Emergency Services can now send life-saving information to hospitals, find a patient's medical history and set up wireless Internet access points from anywhere in the county.

The onBoard system was developed by In Motion Technology, a mobile data communications company based in New Westminster, British Columbia, Canada.

T.J. Brown, a Rowan County paramedic, said the system helps make EMS response more efficient at all stages of a call.

When the call first comes in, the address and complaint is immediately sent to an ambulance's computer aided dispatch system.

Paramedics used to have to wait for some information to be faxed, Brown said.

"We can look at the call history and see if we've been out at a residence before... and we may be able to see that they've been really sick recently," he said. "Once we get a patient's name, we can search through the Internet with a secure connection, and it pulls up medical history, medications and allergies for that patient."

Before the ambulance gets to the hospital, it can transmit patient information directly to Rowan Regional Medical Center, which has installed compatible software on its computers.

For example, if medical personnel think a patient is having a heart attack, they can take a 12-Lead EKG — a diagnostic tool for the heart — and send it directly to the emergency room's cardiologist.

Doctors then can prepare the catheterization lab, or cath lab, ahead of time and get ready to treat the patient. This saves critical minutes, which can help save lives, Brown said.

"Before, we would have to go to the hospital, and then the hospital would have to run their EKG and decide 'Yes, this is a heart attack. We need to bring a cardiologist in,'" he said. "Now, that notification is made before we even leave the scene."

After a call, EMS personnel can send the medical report to hospital doctors from the ambulance, even if they are out responding to back-to-back calls.

Before the new wireless technology was installed, Brown said, paramedics had to wait until they got back to a station to finish their reports.

The device installed in each vehicle is called the onBoard Mobile Gateway, according to a press release from In Motion Technology. A dashboard called the onBoard Mobility Manager lets the county analyze information from Gateways in the field.

Each vehicle's GPS-calculated location, direction and speed is sent to the Mobility Manager. This helps the county dispatch the closest vehicle to the scene of an emergency.

Emergency Services Director Frank Thomason said the county's emergency management and fire division also use the Gateway for wireless Internet access.

"When one of our vehicles pulls up on the scene of an event, that vehicle then becomes mobile hotspot," he said. "If other agencies or personnel are there with computers that need access to the Internet, they can actually use this gateway to gain access."

This also acts as a back-up communication method for the county's 911 center, Thomason said.

"It gives us a lot of versatility and capability out in the field," he said.

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