

Telemedicine services aid emergency care in rural Texas

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A pilot program in Texas that went live 10 months ago is linking ambulance paramedics with five small hospitals in five expansive counties across a vast rural area of the state.

Initially funded for \$500,000 over two years by legislation, the funds actually were awarded to the Commission on State Emergency Communications, which then contracted with the University Health Sciences Center in Lubbock to run the program.

The ambulances have video telemedicine technology in a “DOT Telemedicine Backpack” that includes enterprise class modems and a sophisticated antenna array to communicate with hospital-based clinicians and provide advanced care on the way to local trauma centers or to University Medical Center in Lubbock.

The telemedicine backpack comes from vendor swyMed, supplemented with a LTE/4G cellular signal from Verizon and AT&T to link ambulances to treatment centers, and it’s able to give high-quality video at the lowest bandwidths and in the most remote regions.

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The pilot focuses on trauma, cardiac and stroke emergency medical calls, with hospital physicians being able to see injuries and the accident site so treatment can begin immediately to determine the most appropriate facility to send the patient.

Time is always crucial during a health emergency, and that’s especially so in rural regions, says Sharon Rose, telemedicine project director at University Health Sciences Center. “In this area, to get to a facility takes 30 to 90 minutes,” she adds. “There is a lot of farming and oil fields; it can take 45 minutes just to get to an oil field.”

While the program is ambulance-based, sometimes the most appropriate way to move patients may be an alternative such as air transportation, which is generally used if an accident occurs in an oil field.

The pilot program was developed in late 2016 and went live this past January, with 10 ambulances outfitted with the telemedicine backpack. Five ambulances actually are being used for the program, but the other five also have the equipment so they can act as backups, Rose says.

To keep the program viable, particularly to expand to more rural regions, additional funding sources will have to be found. The state’s Legislature recently approved another \$500,000 for the next two years, and the program will seek funds from the oil companies and public security agencies, according to Rose.

But the program also has reached the point where it must start sharing data on the initiative’s benefits to make the case for continue funding.



University Health Sciences Center

So far, enthusiasm for the program by emergency medical service providers has been high, with every station on board as they see the program as a tool to improve care, Rose says.

However, many emergency department doctors did not embrace the program, arguing that they don’t have time to conduct telemedicine consultations.

That doesn’t sit well with Rose. “I worked in ER for years and had to answer calls on the radio, and looking at video takes no more time and half of the time you can’t understand the radio (discussion) anyway.”

With hospital participation poor in the initial rollout, the program was moved closer to Lubbock, where there was more support from hospitals.

With the program now receiving solid support, the benefits to patients of using telemedicine consultations have become clearer, according to Rose.

“Physicians and patients get together sooner, and decisions on treatment can be made before the patient gets to the hospital. Rather than arriving and waiting for care, a patient now can be sent straight to the cath lab or trauma operating room.”