

Lifesaving Potential of US in Ambulances: Samsung Trial



Tablet-based ultrasound in ambulances with wireless transmission of images to the hospital has the potential to improve diagnosis and treatment of critical care patients, according to first results from a trial by Samsung with Trice Imaging.

The Samsung Electronics America, Inc. trial started on 1 July with the PT60A ultrasound installed in six emergency services vehicles at three Airport Fire Departments in the Dallas-Fort Worth area, Texas, USA.

Ambulance medics used the ultrasound device in 91 callouts to support diagnosis in cases that included cardiac arrest, trauma, internal bleeding and acute abdominal pain. To get a specialist opinion the images are transmitted wirelessly from the PT60A to physicians at JPS Health Network through Trice Imaging's mobile encryption and image management system. The system also allows real-time collaboration to enable the team to get ready for when the patient arrives in the emergency department.

Results from Phase 1

- In several cases, the transmission of ultrasound images has enabled medics and/or doctors at the hospital to positively identify internal bleeding/fluids, ensuring faster treatment on arrival at the hospital.
- Medics at DFW Airport's Fire Department have used ultrasound on cardiac patients presenting no pulse. While the existing protocol has been to contact their medical director to determine whether to cease resuscitation efforts, in several instances ultrasound has detected heart movement, and medics have continued treatment, resulting in return of spontaneous circulation and eventual patient discharge.
- More than 50 medics have been trained on the use of Samsung's PT60A ultrasound system. In the field medics have been able to rapidly access the tablet-based ultrasound to conduct scans while the patient is in transit. Wireless image transmission to the medical director has taken as little as 30 seconds.

Dr. Roy Yamada, EMS Medical Director for the Dallas/Fort Worth area affirmed that the trial has shown the great potential for expanded use of point-of-care ultrasound in the field, enabling vital decisions that can save precious minutes and impact on patient outcomes. Dr. Raj Gandhi, Trauma Medical Director, John Peter Smith Hospital, Fort Worth added that receiving ultrasound images while the patient is en route to the hospital enables faster decision making and direct transport to the operating theatre if required for trauma patients.

The Samsung PT60A is the company's first tablet-based ultrasound system. It is designed for point-of-care applications, includes one-touch measurement features, and is ultra-portable and compact.

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