

Pulsara Case Study: Arkansas Healthcare System

19% DECREASE IN TREATMENT TIMES

Arkansas Healthcare System Uses New Communication Approach to Improve STEMI Patient Outcomes



How a hospital and EMS agency collaborated to decrease average Door-to-Device (DTD) treatment time by 19 percent in four months.

BACKGROUND

Saint Mary's Regional Health System is a Joint-Commission-accredited Level III Trauma Center, located in Russellville, Arkansas. The 170-bed hospital has delivered care to the River Valley community for the past 90 years, and alongside Pope County EMS since 1967.

Saint Mary's and Pope County EMS have a long-standing relationship built on a shared value of putting patients first. As the only hospital and EMS agency serving their region, they together perform emergency response for 28,000 patients annually.



PROBLEM

The healthcare system wanted to improve the critical care process for STEMI patients from start to finish.

With that goal in mind, they identified two areas of opportunity: removing inconsistencies in the communication chain and finding a way to transmit 12-lead ECGs before patient hand-off.

SOLUTION

Knowing how critical efficient response and immediate activation of treatment for heart attack cases are to successful outcomes, the healthcare system realized using outdated technology such as pagers and phone calls would not enable them to meet their goal. It was obvious that a more progressive communication platform was needed.

Pope County EMS Director, Doug Duerr, learned about Pulsara — a mobile technology platform that streamlines patient care by connecting teams across organizations — while attending a state governor's advisory council meeting.

The technology caught his attention because "it was HIPAA-compliant and offered the ability to send 12-lead ECG data straight from the field."

He knew this would benefit both patients and personnel, creating positive strides in communication, quality improvement, patient outcomes, and data reporting. Equally important, it could integrate with hospital counterparts to accelerate the pre-hospital response for STEMI cases and help teams better prepare for patient arrival and appropriate intervention.

Duerr shared Pulsara and its capabilities with his colleagues at Saint Mary's for consideration as a system-wide communication tool for the EMS, emergency department, and cardiology teams.

Saint Mary's Chief Nursing Officer (CNO), Carol Gore, was immediately supportive of the platform's implementation. "It's interactive and allows the entire patient care team to communicate, whether it's EMS to the ED, EMS to the ED and Cath Lab, or to physicians," she said.

By June 2019, the technology was incorporated into the hospital's STEMI activation workflow and processes. While hospital staff education and training were underway, EMS partners were also setting up Pulsara on mobile devices for use in the field.

RESULTS

Saint Mary's and Pope County EMS's successful implementation of Pulsara resulted in a 19 percent improvement for the average STEMI DTD time.

From January to May 2019, 11 patients were treated with a 78-minute DTD time using the former process. After introducing Pulsara, 27 patients were treated with a 63-minute average DTD time from June to September 2019, a 19 percent decrease.

"The impact Pulsara has on timing and allowing cardiology to get the blood vessel opened is huge for our patients," said Gore.

Beyond these impactful time-saving achievements, Saint Mary's and Pope County EMS have seen other benefits from the networked communications Pulsara enables. Now, teams who were once siloed into their own organizations or departments within those organizations are unified around shared information centered on what matters most: the patient.

Motivated by these achievements, the healthcare system is expanding its use of Pulsara with more case types such as stroke, sepsis and trauma — all to expedite critical treatment when even seconds make a difference.

