

BAPTIST HEALTH MEDICAL CENTER

Arkansas Hospital Reduces Average Door-to-Puncture Time by 58% in Five Months



THE CHALLENGE

When Sharon Aureli, RN, BSN, MSN, SCRNP, CNOR, RNFA, CNL, returned to Baptist Health as the Neuro Program Line Manager, she was eager to continue improving care for patients by streamlining the team's communication.

At the time, the stroke team was being notified about incoming patients through phone calls and text messages. The operator would use the paging system to activate a code stroke, and then an additional IVR code stroke as needed. Members of the stroke team would receive the page, which contained only the patient's location, via text or phone call. Though the system worked on a basic level, Aureli knew that a more sophisticated communication system could help their teams reduce treatment times. "I always think there's room for improvement," she said.

THE SOLUTION

In 2020, the State of Arkansas launched an initiative to improve treatment times for time-sensitive emergencies. To that end, many organizations adopted Pulsara, a mobile healthcare communication platform that unites care teams on one secure communication channel. Pulsara organizes communication about each patient in an accessible patient channel that is visible to all members of the care team. Care teams can assemble around a single patient and communicate instantly, reducing the need for phone calls and replacing radio reports, faxes, and pagers with secure team messaging, photos, and live audio and video calls.

Like many other hospitals in Arkansas, Baptist Health joined the initiative to improve STEMI care. Aureli secured approval to use Pulsara for stroke, becoming one of the first in the state of Arkansas to do so. In October of 2021, Baptist Health's stroke teams went live with Pulsara.



Baptist Health Medical Center in Little Rock, Arkansas is an 843-bed medical center and certified Comprehensive Stroke Center. It is the largest private not-for-profit hospital in the state of Arkansas, and provides comprehensive services using the latest in innovative technology. Baptist Health Medical Center - Little Rock has received the Get With the Guidelines® - Stroke Gold Plus Achievement Award from the American Heart Association. In 2019, the hospital was named to the Target: Stroke Elite Plus Honor Roll for its focus on improving acute ischemic stroke care.

Instead of delivering a radio report to the hospital, EMS began using Pulsara to start stroke cases in the field, entering information like the patient's name and chief complaint. With a few taps, EMS began sending that information to the hospital while they were en route, which allowed the hospital to assess the information and instantly activate the appropriate



members of the stroke team. "They all get the same message, they all get the same history, and they all get the same name," said Aureli. "All that information comes through more consistently, with fewer phone calls on everybody else's part." Once everyone receives access to the patient channel, they can immediately begin using it to communicate and coordinate care.

Changing the way things have been done is never easy. When Aureli introduced Pulsara to the team, Lindsey Bourne, MNSc,



APRN, AGACNP-BC, ANVP-BC1, was skeptical, afraid that being required to input patient information would take too much time and compromise care. But, when one of the first Pulsara notifications came in from EMS with a patient's name and date of birth, Bourne took notice. "I was able to look [the patient] up in our EMR and pull their past medical history, what their last meds were, look for any obvious contraindications to treatment with tPA, any history of prior stroke, and any history of prior head imaging. By the time the patient got there, I pretty much already knew who they were," she said. Having access to that information ahead of time helped Bourne and the rest of the team prepare to treat the patient immediately upon arrival.

Pulsara has also made it easier to keep in touch with the right team members at the right time, no matter where they are. On-call specialists who aren't at the hospital can review incoming patient cases as soon as EMS sends them. This gives them more time to assess the information and get ready to go in to the hospital if they're needed. Bourne appreciates being able to talk to all team members in the same message stream, rather than trying to relay messages multiple times. "It's all right there. It's one conversation," she said. "A lot of our frustrations with lack of inter-team communication resolved with the implementation of Pulsara."



THE RESULTS

From the time they implemented Pulsara in November 2021 to March 2022, Baptist Health's stroke teams saw a significant decrease in the time it took to get stroke patients definitive treatment. Over that span of just five months, Baptist Health achieved a 58% decrease in their average door-to-puncture time for stroke.

By enabling easier communication, Pulsara has also helped build stronger relationships between EMS and hospital teams. With 61% of Pulsara stroke cases at Baptist Health being started by EMS, close collaboration is key. Baptist Health has been pleased to see continual increases in communication and collaboration between team members at the hospital and their EMS partners.

For Bourne, Pulsara is a source of truth that promotes increased communication across the whole team. "It's one place where you can literally do everything you need to do, short of administering tPA or doing actual thrombectomy. All your images come through here, and everyone that needs to know is involved. It creates this level of communication that we were suffering without."

Baptist Health Medical Center is devoted to consistently improving care for patients. In September of 2022, Baptist Health - Little Rock was awarded certification by the Joint Commission as an Advanced Comprehensive Stroke Center.

