

Hospitals use new app to direct urgent care

By Kaley Conner

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New technology has been introduced in at least two northwest Kansas hospitals to help ensure patients receive the highest standard of care when their lives might be in danger.

A new app called Redivus Health was launched at Hays Medical Center in February, and Sheridan County Hospital has been using it since last spring. The app — uploaded on cellphones or tablets — is designed to walk medical staff through step-by-step best practices when patients code blue or are experiencing heart attack, stroke or sepsis.

The technology has been found to help reduce staff stress levels and increase the speed of urgent care delivery, said Brian Pfannenstiel, director of critical care at HaysMed.

“Working the floor 10 years as a nurse, one of the things is you know your code blue situation, for example, is something that’s low volume but high risk,” Pfannenstiel said. “In other words, it doesn’t happen all the time — thank goodness, because it’s a patient that’s on the brink of death. But when it does happen, you want to do everything perfectly and have the best outcome.”

The University of Kansas Health System in December partnered with the Redivus Health application team, particularly to expand use in rural hospitals that participate in a statewide heart and stroke collaborative.

The Redivus app is programmed with current best treatment practices for the three diagnoses, all of which are linked to high mortality rates. At HaysMed, each “crash cart” — used in code blue situations or severe patient distress — is equipped with an iPad loaded with the new app. A designated staff member in the rapid response team immediately will activate the app, input the patient’s diagnosis and vital information, then be guided through a detailed treatment process.

In heart attack cases, for example, the app will direct staff to begin chest compressions, then count down two minutes for switching providers so no one becomes fatigued. It also directs medical staff when to use electric shock and follows national treatment standards for what medications to administer and when.

“So it not only tells you the medication to give, but it also tells you the dosage is 300 mg,” Pfannenstiel said. “So you don’t have to recall that in a stressful, tense moment when your patient you’ve cared for for the last 12 hours and bonded with is not doing well.

“It’s different when it’s that patient you’ve been caring for for 12 hours. You bond with them. They talked about their grandkids with you. You’ve become emotionally attached, and suddenly they’re not doing well, and you kind of have that emotional bond. And then you’re trying to think of everything to do.”

Physicians, however, have the ability to override the app’s instructions if they feel it is necessary based on the individual situation.

A few staff members from HaysMed participated in simulation labs in Kansas City to help Redivus developers create and modify the technology for effective use in rural hospitals.

“What we found was it reduces stress levels in the room during the code. It also gave you the confidence,” Pfannenstiel said. “Especially if you had a physician that would order something inappropriately. And you would have the confidence to speak up and say, ‘Hey, that’s no longer recommended.’”

The app also documents every treatment provided in real time, cutting back on the staff time previously required to update electronic medical records.

At Sheridan County Hospital, the app has proven particularly effective in screening patients for sepsis, said Chief Nursing Officer Hannah Schoendaler. Health care providers have been using the app for both inpatient and clinic settings to help alert doctors if patients are showing symptoms.

“Last year, in 2017, we had a total of three (confirmed) sepsis cases, I believe,” Schoendaler said. “And just a couple weeks ago, we had three cases in a week. So the main thing we noticed is nationwide we probably aren’t screening patients

appropriately.”

Rather than checking for sepsis only in the emergency room, physicians have been screening many patients, whether they are staying in the hospital or visiting a clinic. That has helped physicians catch the illness in its earlier stages, which significantly reduces the chance a patient could experience septic shock or die from the infection.

“We have a provider who runs it on her patients in her clinic. She’s our No. 1 user, and in doing that, we just get treatment going a lot quicker which naturally takes the anxiety out of it,” she said. “Because you don’t have to sit here and watch a patient get sicker and sicker and sicker. You just treat them right away.”

The app’s screening tool helps medical staff identify how severe the bacterial infection might be, then walks them through recommended treatments, such as immediate access to fluids and IV antibiotics. It also saves time by calculating how much to give based on the patient’s weight.

“Those are minutes that are crucial that you can’t ever get back,” Schoendaler said. “We actually spend more time at the bedside because we’re spending less time talking back and forth and trying to decipher how we’re going to treat a patient.”

The Redivus app was developed by Dr. Jeff Dunn, a physician who saw a need for a tool to help reduce staff stress levels in extremely high-pressure situations when there are many treatment steps to remember.

“The best way I can describe this is when I was a clinician practicing these really high mortality scenarios, physicians and other providers like nurses and EMS paramedics a lot of times would get adrenaline brain, where you freeze up and can’t make a decision with focus,” said Dunn, founder and CEO of Redivus Health. “What we started to think about is the same concept when you go from a paper map to a navigational map. Why wouldn’t that be able to work for these really high-intensity scenarios like cardiac arrest, sepsis and stroke?”