

CASE STUDY



UCHEALTH MEMORIAL HOSPITAL CENTRAL

Streamlined Communication Saves Time for Trauma Patients



THE CHALLENGE

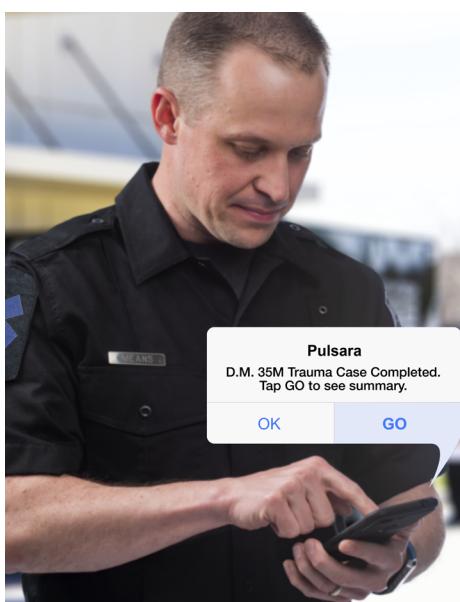
As a tertiary care center and Level I trauma facility, the trauma team at UCHealth Memorial Hospital Central had their patient care process dialed in. However, there was one part of their process they weren't satisfied with: their communication system.

The team was receiving notifications through an alarm dispatch system, which ran through the hospital operators and was then manually managed by each individual service line. UCHealth's Associate Nurse Manager, Nikki Schroeder, BSN,

RN, CEN, TCRN, described their process: "Prehospital providers would call in to our ED charge nurse, relay pertinent information, and then the ED charge nurse would determine what level of activation was required. To notify our hospital team, the charge nurse would give the information to our unit clerk, and our unit clerk would page our 811 paging system. That's how the trauma surgeon, the ICU, and the whole trauma team got notified."

Even though the delay only lasted a few minutes, it took up valuable time that the trauma team needed to prepare for incoming patients. Very little information about the patient was transmitted ahead of time, which made it difficult for the team to mobilize the correct resources before the patient's arrival. And as with most paging systems, it was impossible for the charge nurse on duty to tell whether team members had received and seen their notifications.

While the system worked, the UCHealth team felt it could be faster. In an effort to keep improving their process for their patients, UCHealth's trauma team decided it was time to leverage networked communications and streamline their healthcare logistics with Pulsara.



UCHealth Memorial Central is a tertiary care center and Level I trauma facility in Colorado Springs, Colorado, with a trauma registry volume of approximately 2500 patients a year. UCHealth's Colorado Springs location boasts an accredited chest pain center and the only comprehensive stroke center in southern Colorado. Prior to COVID-19, the Memorial Central campus was the busiest ED in the state of Colorado.

KEY RESULTS

- ▶ Trauma team notified 5-7 minutes faster
- ▶ Trauma surgeons at bedside 5.8 minutes faster
- ▶ 39% decrease in door-to-CT times for trauma

THE SOLUTION

Pulsara is a healthcare communication platform that connects clinicians and care team members across organizations on one secure channel for each patient. Using familiar technology and interfaces, care teams can communicate efficiently and effectively when treating patients—replacing radio reports, faxes, multiple phone calls, and pagers with HIPAA compliant instant messaging, shared patient profiles, photos, and live video calls.

UCHealth Memorial Hospital Central had already been leveraging Pulsara for STEMI and stroke for five years when the trauma team decided to join the game. Within just eight months, they saw a great deal of success in streamlining communication between their care teams.

THE RESULTS

After implementing the Pulsara platform, UCHealth's trauma team is now sending and receiving faster notifications, complete with more detailed patient information. "It's remarkable how real-time the notification is," said Heather Finch, MSN, RN, CEN, TCRN, and UCHealth's Manager of Trauma Services. "It's a one-stop shop. You don't have to call the unit clerk, and then our alarm dispatch center, and then the trauma surgeon, and then the ICU. Everybody is notified at once." Finch estimates that it's easily saving 5-7 minutes for the trauma team, which makes a big difference in their ability to prepare for a patient.



When the trauma team first made the switch, they initially did a dual process to compare the two systems. They found that Pulsara notifications were even beating the unit clerks' workaround to help notify surgeons more quickly. "Our previous system was a little bit slow," said Schroeder, "so to get ahead of that, our unit clerks were having to call the surgeons before they even paged 811 to get the surgeons to the bedside. When we first implemented Pulsara, the Pulsara notifi-

cations were beating that phone call by two to three minutes most times. The surgeons would already be at the bedside taking care of the patient when they would get the 811 page." Previously, the average time it took for trauma surgeons to reach the bedside for a full trauma was 7.97 minutes. In the 6 months after implementing Pulsara, that number dropped to 2.18 minutes—a 73% decrease.

Pulsara has also helped cut down the workload for unit clerks, allowing them to put in orders for the traumas even faster. "For those of us in the ED, cutting down that workload on our unit clerks was the biggest selling point," said Schroeder. "Our unit clerks also put in orders for the traumas, so by streamlining that process, we're able to get those orders in even faster."

Faster notifications give UCHealth's trauma team more time to prepare for incoming patients—and more context for knowing what resources they'll need. "Before, it was just a one-way page," Schroeder explained. "You couldn't ask questions, and you couldn't clarify anything; you just got to the trauma bay. With Pulsara, there is a section where you can ask questions." Not only that, it allows team members to get messages out to the right people at the right time. "CT uses it a lot to say, 'CT's ready, the room's clear, we're holding it,'" said Schroeder. "The surgeons use it if we have multiple traumas and they need a backup to respond."

Pulsara also allows the trauma team to add in other specialty teams to help out with more complex cases, such as OB trauma. "The ability to add on several teams, just in case that's what the patient needs, is really nice," said Finch. Finch conducted a trial with the trauma team's OR liaison in order to see if it would work for their team. "Literally within a couple days, I heard, 'Yeah, all of my charge nurses would like this now. And, by the way, we're getting those alerts five to seven minutes faster.'" For patients experiencing both a stroke and trauma (strauma), UCHealth's average door-to-CT time was previously 22.3 minutes. After using Pulsara for 6 months, their new average was 13.5 minutes—a 39% decrease.

As a large academic institution, UCHealth has surgical residents and other healthcare professional learners that rotate for training. Pulsara's intuitive and user-friendly interface has even been a hit with clinicians who are only there for a couple months. "It's really user-friendly, and so people keep asking, 'Can you add me to it?'" said Finch. "We're excited to see how our process continues to develop with it."

Overall, UCHealth's trauma team is much happier with their communication process. "We're getting people to the bedside faster and more informed, and are able to track those patients much easier," said Finch. "We're just over the moon about how we've been able to integrate it and implement it from the notification standpoint. With our volume and our acuity of traumas, it's working very, very well."