

## AUSTIN-TRAVIS COUNTY EMS

EMS County C4 Unit Leverages Pulsara to Find Treatment for Low-Acuity Patients



### THE CHALLENGE

When the COVID-19 pandemic first surged across the U.S., it created many new problems for EMS organizations everywhere. Some patients infected with COVID-19 urgently needed care at the hospital, while others were best served by staying home. It was difficult to tell which was which. Patients with other ailments were stuck at home, unable to receive regular needed medical care. And on top of that, the pandemic was a major provider safety issue; medics and hospital staff put their lives on the line daily to care for patients, constantly risking exposure to the virus.

Austin-Travis County EMS (ATCEMS) knew they needed to deploy an innovative solution, and fast. They responded by forming what came to be known as the C4 unit: the Collaborative Care Communication Center.

The C4 is an elite team of twelve EMS-trained clinicians who manage calls and connect

patients with a variety of resources. At the start of the pandemic, they began using Pulsara, a healthcare communication, telehealth, and logistics platform, to build better communication with their teams. Through Pulsara, they sent alerts to the hospital about crews bringing in COVID-19 patients, giving hospital staff more time to prepare. And since the providers on-scene wore heavy PPE, making it difficult to communicate verbally, the C4 was able to use Pulsara to facilitate communication for them and manage the case remotely.

But as the pandemic evolved, so did the challenges faced by healthcare providers. By the time ATCEMS was facing its third wave of the pandemic in August 2021, local hospitals were maxing out capacity and lacked both the beds and the bandwidth to care for every patient that came through their doors. ATCEMS knew they needed a way to reduce the burden on emergency departments.



Austin-Travis County EMS serves a total of 2.2 million people across Austin and Travis Counties in Texas, covering a service region of over 1,039 square miles. They run anywhere between 500 and 700 calls a day as a system, depending on the day of the week and the status of COVID-19 surges in the region.

### KEY RESULTS

- ▶ Better care for low-acuity patients
- ▶ Eliminated 434 unnecessary transports within 3 weeks
- ▶ Successful and equitable ET3 program





## THE SOLUTION

That's when the C4 unit decided to switch gears. The team began devoting their energy to optimizing their processes around the vast majority of their call volume: low-acuity patients who needed care, but not necessarily a trip to the emergency room.

Though all patients who call 911 need help, many times, the type of care they need isn't found in an emergency room. The goal of the C4 unit is to coordinate personalized care for each patient. Instead of the one-size-fits-all approach of ferrying them to the ED, medics are empowered to get patients the most appropriate treatment for their needs, immediately.

The C4 may be pulled in at various stages of the patient's journey. If a 911 dispatcher recognizes that a call might best be handled via telehealth, they may hand the call off to the C4 team. If paramedics are dispatched to the scene and recognize upon arrival that the patient may be best served by treatment in place or a destination other than the ER, they can also contact the C4 to help identify which resources will best suit the patient's needs.



Once the call comes in, the C4 unit can use a number of different methods to try to solve the patient's problem. Stephen White, Commander at Austin-Travis County EMS, explained the process: "When crews contact the C4, we get them whatever solution they need for their problem: whether it's social services, medications, a telehealth visit, or alternative transports to clinics or a rehab center. Not only are we taking the load off the hospital by finding alternative transports and treatments for these patients, but we're also saving the system countless hours in that transport, hospital turnaround, and return to district times."

If the patient doesn't need labs or imaging and the call is deemed an opportunity for treatment-in-place, the C4 can dispatch a physician, a physician assistant, or a nurse practitioner to the patient's location for procedures like sutures, strep tests, urine analysis, or dips. If a medic wants to seek a second opinion, physicians and medical directors can join the encounter via Pulsara's live group video capabilities.

ATCEMS has partner agreements with physicians, clinics, specialty hospitals, and behavioral health providers, allowing them to contact whichever resource they need with the touch of a button. "We're able to add them onto Pulsara, and then as we need them, [Pulsara acts as] our communication clearinghouse, where we just hit one button and it's going to instantly connect us to that resource," said White. "And the physicians love the ability to see patients firsthand, through photos and via live video consultations."

The combination of having an on-scene medic conducting the call and effectively bringing the physician to the scene via telehealth is working very well for ATCEMS. Where traditional telehealth encounters suffer from a lack of in-person examination, having a medical professional on the scene with the patient makes a world of difference. "In a traditional telehealth call, your primary care physician is just going to ask you questions, and you're going to answer them," said White. "They have no way to verify it or get a better sense of the true situation. With this telehealth consult, you have a provider on scene that is able to obtain vital signs, do a full assessment, and answer any questions that the physician may have that the patient may not understand how to answer, because they don't speak the lingo. We're getting a much better quality telehealth experience with the provider on-scene."

## THE RESULTS

The power of ATCEMS's C4 model speaks for itself: In the first five days of using Pulsara to power the crew's new goals, they were able to avoid transporting 154 people to the hospital. Instead, each patient received care specific to their needs and customized to their situation. Over the span of three weeks, the C4 unit was able to keep 434 low-acuity patients out of the hospital.

Austin-Travis County is eager to share the success of their new model with other organizations, in the hopes that someone will be able to benefit from the solution. Though ATCEMS is fortunate to have access to a great deal of resources, White says that variations of their system can certainly be replicated by other organizations. In the absence of a C4 unit to direct medics to the most appropriate resource or destination, medics themselves can still directly contact available resources through the Pulsara platform.

At the time of the publication of this case study, ATCEMS is managing over 100 telehealth calls through the C4 program every week. Though they hope that the numbers will wane as the pandemic subsides, White feels that the discovery of a working system for helping treat low-acuity patients is invaluable. "Those low-acuity patients will always be there. And now that we've proven that we can do something for them, I feel like that's going to stick around. That's going to continue to be a success."