

uchealth

A telehealth approach: Emergency stroke care



UCHealth, a nationally recognized network of hospitals, clinics and healthcare providers, serves communities throughout Colorado, southern Wyoming and western Nebraska. As part of its goal to optimize healthcare, UCHealth has developed a revolutionary telehealth solution for providing emergency stroke care using a Mobile Stroke Treatment Unit (MSTU). UCHealth's solution operationalized in January 2016 as the third of its kind in the nation and the fifth globally.

The Challenge

When it comes to treating emergency stroke patients, time is of the essence. The UCHealth Stroke Program adopted a telehealth solution for stroke transport with the primary goal of saving valuable minutes during an emergency stroke response.

Without previously established guidelines for launching the MSTU, UCHealth's revolutionary solution needed a reliable telehealth partner to offer continuous support throughout development and implementation. At the top of UCHealth's list of criteria for potential telehealth providers was a strong connection for its dedicated stroke team.

A successful mobile stroke unit needs:

- Ease of use for clinicians in emergent settings
- \cdot Scalability
- \cdot Trusted technology
- \cdot Reliable customer support

The Solution

UCHealth was already utilizing the Teladoc Health virtual care platform for telestroke. The organization decided to move forward with the existing platform and technology for its innovative MSTU solution.

The team worked to create a model of the emergency department in the back of the ambulance and ensure that all mobile technology worked in harmony at any given location. Today, when specific criteria are met during a 911 call, and the patient is potentially suffering a stroke, the MSTU is dispatched to the patient's location.

The MSTU resembles a typical ambulance outfitted with additional functionality not found in an ordinary ambulance. The unit contains a CT scanner, the Teladoc Health network connection and video technology, a specialized team in person and virtual, and stroke-specific medications. The effectiveness of treatment enabled by the mobile stroke unit has exponentially improved care for many stroke patients. The MSTU team has been pleased with the high-quality hardware of Teladoc Health, including the bundled camera and reliable software that can re-establish the connection if dropped. These critical features have proven extremely advantageous in urgent and emergency settings.

The Results

UCHealth's MSTU launched in January 2016 and was one of the first in the nation. The MSTU currently operates from 8:00 a.m. to 8:00 p.m., six days a week, in collaboration with the 911 system and shared between local fire districts. The success that the MSTU has achieved has sparked a desire to expand the program.

UCHealth is currently participating in the Benefits of Stroke Treatment Delivered Using a Mobile Stroke Unit (BEST-MSU) study, a multi-center national clinical trial. The BEST-MSU study aims to compare stroke management using an MSU versus standard management to optimize pre-hospital triage by an MSU to speed treatment times and improve outcomes.

The trial hypothesizes 1) that the MSU pathway will result in a shift toward earlier evaluation and treatment, particularly during the first hour after symptom onset, leading to substantially better outcomes, and 2) that as a result of improved clinical outcomes resulting from earlier treatment, the costs of an MSU program will be offset by a reduction in the costs of long-term stroke care and increase in quality-adjusted life years, thereby supporting the more widespread use of MSUs.

"The Mobile Stroke Treatment Unit has innovated emergent stroke care by bringing treatment directly to the patient when minutes matter."

Brandi Schimpf, BSN, RN, CEN, Stroke Program Director, UCHealth

"I got all the treatment I needed right there on board the stroke unit. By getting to me so quickly, I have no lasting effects from my stroke. The stroke unit saved my life—life is good."

MSTU patient

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About Teladoc Health

Teladoc Health is the global virtual care leader, helping millions of people resolve their healthcare needs with confidence. Together with our clients and partners, we are continually modernizing the healthcare experience and making high-quality healthcare a reality for more people and organizations around the world.

