A THOUGHT LEADERSHIP ROUNDTABLE

Navigating the Digital Frontier of Transformative Telestroke Care

CHIME DIGITAL HEALTH LEADERS

eVisit

Moderated by CHIME's SVP & Chief Learning and Member Experience Officer, Nicole Kerkenbush and contributer Sachin Agrawal, CEO, eVisit.

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SUMMARY

Every 40 seconds, someone in the United States has a stroke, resulting in more than 140,000 deaths per year and hundreds of thousands more patients who suffer long-term disability due to delays in care or inappropriate treatment decisions. Stroke care is especially complicated in rural and remote communities, where the nearest facility could be hours away – and there's no guarantee that an experienced stroke care team will be available to help.

Over the past decade, telestroke technology has become invaluable for connecting resource-strapped care providers with stroke care experts in medical hubs that could be many hundreds of miles away. With audio and video technology, remote monitoring devices, and real-time data feeds, care providers can actively assist their colleagues in ensuring top quality care on site or facilitating transfers to more appropriate settings.

However, implementing an effective and efficient telestroke program can be challenging. With staffing shortages, tight finances across the board, and more incentive than ever to prove the value of every dollar spent, health systems may be debating whether it's the right time to implement or expand their telestroke capabilities.

EXPLORING THE MULTIFACETED VALUE OF TELESTROKE CARE

Stroke patients only have a few hours after the onset of symptoms to receive the maximum benefits of first-line care. That means they must contact a provider, get to a physical care location, receive imaging and other testing, and be given the right treatment all within a very tight timeframe.

"Telestroke opens the aperture for access for millions of people who might not otherwise get care in time," explained Daniel Highland, VP of Emerging Operations at Leidos QTC Health Services. "Healthcare deserts across the US are growing as the clinical population is aging and leaving, and we're not keeping pace with the demand."

"The ability to have a lot of highly skilled clinicians able to reach a greater scope of people through telemedicine is advancing our capabilities significantly," Highland continued. "We really have to embrace virtual care as a way to mitigate the decline of the clinical workforce."

Access to timely, experienced care is a major issue facing stroke patients today, emphasized Andrew Watson, MD, Senior Medical Advisor UPMC Enterprises and Senior Medical Director for UPMC Health Plan in Pennsylvania. For example, a 2021 research paper showed patients cared for first at a telestroke-enabled hospital received brain cell-saving reperfusion therapy more often and quickly and they had lower short-term mortality than patients first treated at hospitals without telestroke capability.

"The health system simply doesn't have enough capacity right now to meet the demand in a timely manner, so we absolutely need to turn to telemedicine and hub-and-spoke strategies to make sure access is equitable and available to the people who need it," Watson said. "Pennsylvania is the third-most rural state in the country, and so there is a huge challenge in my area with supporting rural hospitals and the people they serve in those communities without making them drive five or six hours to get somewhere that can provide the optimal care. You can't always afford that kind of time with a stroke, so telestroke is vital to serving these regions."

Telestroke started to gain momentum in the late 1990s, when cutting-edge video communications started to make it possible for remote providers to collaborate across distances. A quarter of a century later, however, and health systems are still working to make it into a ubiquitous capability.

"Telestroke isn't a new concept, but it hasn't reached its full maturity yet," noted Ethan Booker, MD, Chief Medical Officer for Telehealth, MedStar Health, serving the Maryland and Virginia areas. "We have three comprehensive stroke centers. And while we've used telestroke for a while to bring the capabilities of those stroke centers to other hospitals, we are still striving to get more comprehensive about our telestroke strategy."

USING TELESTROKE TO MAKE STRATEGIC DECISIONS ABOUT LEVELS OF CARE

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>
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> MedStar Health

Like many other organizations, MedStar Health is dedicated to working through their telestroke roadmap to continually improve care delivery and unlock additional value over time.

"A benefit that deserves more recognition is giving our requesting hospitals the courage not to do something they're not fully equipped and experienced to handle," Booker continued. "Sometimes it's worse to do something than to hold off. It's really, really hard as an emergency physician to know that 'time is brain' and that thrombolytics can have this remarkable impact, but that in many cases it's not likely to help and it may hurt. You need help from a vascular expert to be brave enough to talk to a family and say, 'This is not the right thing to do.' Having access to experts who can assist with patient selection is very important to ensure that patients are getting the right care from the right people."

Giving providers the ability to acknowledge when specialty assistance is needed – and act on that recognition quickly – is key to a successful hub-and-spoke relationship that keeps patients in the center of care, agreed Matthew Starr, MD, Vascular Neurologist and Associate Director of the UPMC Stroke Institute.

"But you also have to avoid the urge to push out transfers in all cases just because it's easier for the originating site," Starr pointed out. "During COVID, for example, when everyone was hit with a capacity crisis, we really had to work with our outside facilities on which patients really needed transfers and which could be served with a combination of local care and virtual care where they were."

"We always want to bring over the patients who will benefit from the most advanced levels of care," Starr continued, "but we also need to be discerning about how we use our resources and determine the best course of action."

Nilesh Dave, MD, CMO and VP of Clinical Effectiveness at Texas Health Resources concurs that sometimes using telestroke care to keep patients where they are is the best course of action.

"There is a social value to consider," Dave said. "Keeping patients in their communities is generally desirable, so their families can stay involved in their care and recovery. It's often overlooked as a metric of success, but it's a big part of the patient experience. Using telestroke to reduce disruption in people's lives and make it easier to manage what can be a very devastating medical crisis is hugely important for patient satisfaction."

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FINDING THE MEASURABLE ROI IN REMOTE STROKE CARE

Measuring the impact of an initiative like telestroke can be challenging, especially when there are so many different clinical, financial, and person-centered metrics available to gauge return on investment.

Overall, telestroke has been found to be cost effective for both the hub and the spokes when deployed correctly, and can produce a variety of clinical benefits, including lower 30-day mortality, increased use of tPA, and improved health equity among historically underserved socioeconomic groups.

"It's important to collect the performance indicators that are most of interest to your leadership so they can clearly understand the impact of your program," advised Starr.

"For example, we use a variety of metrics to gauge the overall impact of our virtual programs, including time from consult request to time getting on camera, time from consult request to thrombolytics administrative, and time to getting them into a helicopter to a tertiary care center, if necessary. We know that the shorter those windows are, the better the patient will do, so we monitor those very closely."

Presenting the right data to the right stakeholders is crucial for making an impact on decision-makers who are likely juggling multiple priorities with only limited resources at their disposal.

"We find from our vantage point as a transformation partner to health systems that projects don't get approved without a supportable business case, even if the health system is excited about the clinical value and experience value of a telestroke solution," said Sachin Agrawal, CEO of eVisit.

FINDING THE MEASURABLE ROI IN REMOTE STROKE CARE CONTINUED

"As much as we want to promote improvements in quality or outcomes, hard ROI is extremely important to demonstrate in this economy," Agrawal said. "That's why we have to gather the right information about the impact of virtual care and tie it back to the financial and performance metrics that matter to the board room."

However, this information-gathering effort should also reflect an understanding how telestroke augments the culture and efficiency of the overall organization, said Shabbir Bharmal, VP of Innovation and Operational Improvement at Leidos QTC Health Services.

"The goal of adding a new service should be value creation for the organization as a whole," Bharmal said. "The traditional KPIs are important, but we also need leadership to think about additional metrics, like clinical burnout and labor retention, patient satisfaction, or community reputation. It's harder to draw a direct line to those factors, but those are the true markers of value and success for a new initiative."

DEVELOPING AN INTEGRATED, HOLISTIC APPROACH TO TELESTROKE

Finding ROI in telestroke depends on treating it as more than just another technology added to the stack, the participants agreed.

"Certainly, the technology has to be reliable 24/7, because there are time-sensitive decisions being made," said Bill Sheahan, Chief Innovation Officer, MedStar Health. "But it has to be deeply integrated into a coordinated strategy that accounts for people and processes, as well. That requires the organization to be committed at scale to telehealth as a high-value care modality and make investments that really drive a holistic care model. Many organizations have struggled with that, even after seeing the benefits of virtual care during COVID."

"Ultimately, telestroke and other virtual care strategies are about getting the right patient to the right treatment at the right time," added Pete Marks, PhD, VP and Chief Information Officer at WakeMed in North Carolina. "You can jump in with a technological solution right away, but that can be a trap that we often fall into because we're excited about it. Unless we have the processes and workflows to surround it with meaningful coordination and collaboration, the technology isn't going to solve the problem."

As telestroke continues to mature, health systems will need to take a measured but visionary approach to integrating the technology, the workflows, and the value of these tools into their overall strategic plans for success.

"We have to deconstruct the processes, the models of care, the reimbursement structures - all the pieces that go into delivering healthcare – and then rebuild our system with automation, digital tools, and telehealth as integrated components," concluded Sheahan. "That's the only way we're going to start to see the full value of what technology has to offer within a reasonable timeframe. There's so much potential left out there for us to achieve, but it will be worth the effort for patients, for the providers who care for them, and for the good of the entire health system."