

**AHA COVID-19 Clinical Guidance Series**  
**Temporary Emergency Guidance to US Stroke Centers During the COVID-19 Pandemic**

**CREATIVE BRIEF**

**BRAND STATEMENT:** The American Heart Association is deeply concerned about the public health crisis facing our world. Our top priority regarding coronavirus (COVID-19) is the health and well-being of individuals and their families today and in the future, in every community, everywhere. Our mission – to be a relentless force for a world of healthier, longer lives – is more important than ever.

**PROJECT BACKGROUND:** The American Heart Association is creating a series of podcasts to reach healthcare providers who need critical information to provide care for cardiovascular and cerebrovascular patients who require acute care services within the context of the COVID-19 pandemic in the United States as well as inform urgent clinical care practices within in other countries.

**TARGET AUDIENCE:** All healthcare providers and especially those on the front lines who provide care for women and pregnant women. Others who may also be interested in, and impacted by, this content include healthcare administrators, policy makers, scientists and the general public.

**OBJECTIVE:** To share current information with healthcare providers in the assessment and treatment of women as it relates to COVID-19 and to share similar information for women during their pregnancy as well as observational findings of birth outcomes in the context of the COVID-19 pandemic.

**KEY CONSUMER BENEFIT:** Sharing of information can hopefully improve the response and lessen the impact of COVID-19 in the patients medically treated by those who listen to this program.

**TONE:** Urgent, Inclusive, Empathetic, Informative, Welcoming

**SHOW OPEN (3 MIN)**

I am Dr. Peter D. Panagos is a Professor of Emergency Medicine and Neurology at the Washington University School of Medicine in St Louis, Missouri and Chair of the AHA Stroke Council.

**PP: This is a three-minutes or less “Power Bite” of what will be learned in this podcast**

Welcome to this podcast series focusing on the COVID-19 patient with concurrent cardiovascular and cerebrovascular disease. This podcast focused on the recent publication in *Stroke (April 2020 Edition)* entitled *Temporary Emergency Guidance to US Stroke Centers During the COVID-19 Pandemic*. This was a joint effort of the AHA/ASA Stroke Council Leadership to address some of the most pressing questions facing the stroke community in this unprecedented COVID-19 global pandemic. It is our hope to provide:

- *Initial high-level guidance for the care of stroke patients during this healthcare crisis*
- *Recognize that ‘business as usual’ may not be possible in many centers and regions given the rapidly evolving and asymmetric burden COVID-19 is placing on our system of care*

- *But, also recognize, that despite these differences, this is some commonality in challenges and potential responses across the US and North America*
- *Accept that variability and innovation will prevail as we all attempt to care for stroke patients*
- *Place a call out to the entire stroke community to provide the best possible stroke care while being aware and prioritizing the need for staff protection from EMS-ED-Hospital-Rehab settings*
- *Acknowledge that there will be ongoing adaptations to the processes/protocols, stroke team composition, physical setting for hospital-based stroke care, use of telehealth technologies and temporary relaxation of some of the metrics*
- *A call to the Stroke Community for ingenuity, research and dissemination of best practices at a pace that never seemed possible*
- *A unified Stroke System of Care has never been more important than today*

Ultimately, it will take teamwork and collegiality at all levels during these highly stressful times. Our hope is that we will recognize that we are not alone in these challenging times, the stroke community will rise to this challenge and still provide the best care to each and every stroke patient in our system of care

#### Q &A (15 min)

**GUEST INTRO (30 SEC) Dr. Patrick D. Lyden, is Professor of Neurology at Cedars-Sinai Medical Center in Los Angeles, California and Chair-Elect of the AHA/ASA Stroke Council.**

**Dr. Eric E. Smith is a member of the Calgary Stroke Program at the University of Calgary, Canada, and a member of the Stroke Council.**

1. **To PL:**
  - a. **Why did the Stroke Council decide to publish the Emergency Interim Guidance statement?**
2. **To ES:**
  - a. **Everyone is watching the situation in New York City and elsewhere; what can you tell us about the impact of COVID on stroke care in the cities with the highest incidence of COVID?**
    - i. **ES: The COVID pandemic requires changes to most of our routine practices. We need to keep providing the same high quality, highly effective acute stroke unit care. But the way in which we do so will have to change. Regions like New York are under the greatest strain currently. But they are only leading the way. Many regions could experience similar surges as New York. We need to think ahead and prepare the best we can. The Interim Guidance cites four areas where**

resources will almost certainly be strained. First, in availability of personal protective equipment (PPE). Because many acute stroke patients are aphasic or confused, screening for viral symptoms will be insensitive. PPE should be used when evaluating such patients, depending on local protocols and availability but may be in short supply. Telemedicine solutions, proven to be effective for acute stroke valuation and treatment, could allow assessment without in person risk and save PPE. Second, personnel may be reduced due to quarantine, illness, or redeployment. Develop back up schedules, minimize the number of staff exposed to each patient, and consider scheduling in shifts. Third, ICU beds will be in short supply. Use them wisely, but keep in mind that many patients with severe ischemic stroke, ICH and SAH can be saved and may have lower mortality risk than ventilated COVID-19 patients. However, routine use of an ICU bed to monitor a stable post-thrombolysis patient is not evidence based and can be avoided, even if it means some compromise in the frequency of vital signs. Fourth, we may see some patients avoiding calling 911 because of fear of coming to the hospital. We need to encourage patients to seek care urgently. However, reports from the field suggest that there is little change in the rate of presentation of moderate to severe strokes. We need to prepare for the fact that stroke is not taking a holiday until the COVID-19 pandemic is over.

3. **To both:**

- a. **Could each of you tell us what you personally worry most about in terms of stroke patients continuing to get treatment? Are patients afraid to call 911? Are stroke teams able to see the patients quickly?**
  - i. [I WILL LET PAT GO FIRST. I SUGGEST THERE COULD BE TWO TOPICS, ONE FOR EACH OF US, FIRST, THE ISSUE OF DECREASED 911 ACTIVATION. SECOND, THE SPECIAL CHALLENGES IN GETTING A COVID POSITIVE OR SUSPECTED PATIENT TO THE CATH LAB FOR EVT.

4. **To ES:**

- a. **The Temporary Emergency Guidance statement talks about adhering to established guidelines with respect to treating all patients who qualify, but you relaxed some of the guidelines with respect to door-to-needle times, post-thrombolysis vital signs, etc. Can you tell us more about that? What was the rationale here?**
  - i. We need to keep in mind that thrombolysis and EVT are some of the most effective treatments in cardiovascular medicine, as good or better than anything the cardiologist can do. We have a duty to keep providing the best care we can in these challenging times. But to care for our patients we need to care for ourselves. Undoubtedly, that will mean slower door to needle and door to puncture times for many patients, due to the need to don and off PPE. But we need to protect ourselves so that we will be there for the next patient. Protocols for post-thrombolysis vital signs and routine 24 hour CT scan have been rigidly adopted into clinical practice based on the NINDS clinical trial protocol, but their value is not proven by controlled trials and relaxing adherence is eminently justifiable if it enables treatment of more patients.

5. **To PL:**

- a. What can you tell the listeners about the next few weeks? What do you foresee and what should stroke professionals be ready for?

**6. To Both:**

**Do you have any examples of innovation from either your own hospital, or stroke centers worldwide, that have allowed for stroke patients to continue to receive the best stroke care during the COVID-19 pandemic?**

**ES:** We are donning PPE for screen positive or aphasic patients; have reduced our stroke team to fellow, attending and nurse only; and according to our ED policies now follow either of two different physical paths to CT: Covid positive and Covid negative. We have a COVID-enabled angio suite. In our prior practice we did most EVT awake with local anaesthesia only, but now have a lower threshold for elective intubation prior to EVT to minimize generation of aerosols, and are avoiding conscious sedation. All outpatient care is being provided by telemedicine but our inpatient acute consultations are being done in person because we don't have sufficient IT infrastructure in our ED for video consults.

**Calls-to-Action**

**What action or key takeaways would we like to leave with our audience?**

- 1. Stroke is still an emergency, and time is still brain. The pandemic makes it more difficult to do our job, but we do still have a critical job. Thrombolysis and thrombectomy work. Patients should be reminded to call 911 if they suspect stroke. EMS and our ED colleagues need to know they can count on us to be there for stroke patients.**
- 2. But remember, there are too few of us in Vascular Neurology and we should minimize risk exposure and illness ourselves. Be careful. Follow PPE protocol**
- 3. Use Telemedicine. Even in your own hospital, it is safer and consumes less PPE if the Code Stroke team responds via telemedicine, rather than in person.**
- 4. Teamwork and innovation are important**
- 5. In many regions and centers, stroke care 'as usual' will be a challenge. We will be required to adapt to the changing environment and resources in our system frequently and often.**
- 6. Call to action for the stroke community**

**Closing Thoughts**

**PP:**

**Please return online to AHA Professional Heart Daily for the next podcast which focuses on “Considerations for Drug Interactions on QTc in Exploratory COVID-19 (Coronavirus Disease 2019) Treatment.” Our very own AHA Chief Science and Medicine Officer, Dr. Mariell Jessup will interview Dr. Dan Roden.**