

AMERICAN HEART ASSOCIATION  
STROKE AND COVID: A NURSING PERSPECTIVE

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>> Good morning, everyone, and welcome to Stroke & COVID: A Nursing Perspective. We are just going to go over if you also prepare us for this presentation. As a reminder, there are no CEs. If you don't have any technical issues, you can refresh your screen. If that doesn't work, please contact customer service.

I will turn it over to the stroke guideline senior manager.

>> Happy Wednesday, everyone. We have got together if you have nursing's finest to share their knowledge with you today. Before I introduce them, I would like to acknowledge the extraordinary efforts of the frontline providers at this unimaginable time. Your efforts in whatever role you feel, and I know they change every day and there are many different hats you are wearing, are really the true lifeblood of the community, your institutions and your stroke programs. Please accept a thank you for your continued efforts with your programs by keeping data flowing, maintaining quality, and optimizing stroke care and improving outcomes for our patients.

I have the pleasure of introducing our three panelists today. Our first panelist will be Tiffany Sheehan. Tiffany is a stroke program coordinator in St. Joseph's Hospital and Medical Center in Phoenix, Arizona. She has fifteen years of neuroscience nursing experience and has served the stroke population through various nursing roles, contributing to nursing practice and stroke care through stroke program development, community outreach, education, and research. For the past eight years she has been the stroke program coordinator that while academic and solutions where she has been responsible for leading the effort -- efforts in the company ancestor centered syndication. She is board certified in stroke nursing, and a fellow with the American heart association. Stephanie earned her doctorate of philosophy in nursing science with a concentration in healthy outcomes in policy, from the University of Florida in Gainesville, Florida. Her research is focused on examining how to -- the delivery of care influences in the -- population.

Our second panel today is Jennifer Henry. She is director of patient care services, -- at the University of Tennessee Medical Center in Knoxville, Tennessee. Jennifer has been a nurse for over 30 years. She has served on a variety of roles during the course of her career including a staff nurse, in trauma and surgical critical care, stroke coordinator and director. She holds a Masters degree in nursing from East Tennessee State

University. She is surfer -- certified in neuroscience and stroke nursing and is a member of several professional organizations, including AANN, ANPC and AONO. She and her husband of 30 years are blessed with two adult children and six beautiful grandchildren. And our last presented today is clear and Madison. She has over 34 years of nursing aspirants in the area of neuroscience nursing. Her experience includes interventional care, critical care, and medical surgical nursing. She provides consulted services in the area of stroke center developing an ongoing maintenance of acute care services to support delivery of stroke care.

She works with a large stroke center that supports six acute-care campuses, her expense includes overseeing operations, ongoing performance and quality and staff develop. She has led her got multidisciplined routine in becoming one of the first centers nationally to achieve competence of stroke center certification.

Claranne is actively involved in stroke care delivery both locally and nationally. Bunkers in several American Stroke Association in American Neurosciences Nursing Committee task force. She has been a national speaker on topics related to stroke care delivery and target to mature management post cardiac arrest. She has been an author for the American Nurses Association core curriculum, the -- series for critical practice and has been published in multiple journals. Claranne received her bachelor of science in nursing from East Strassburg University and created a Master of science in nursing. She is certified at the American Board of Neuroscience Nursing as ACN, RN, and as a assistant professor of nursing at East Strassburg University. So growing our next generation of hopefully some neural stroke nurses.

So I'm going to hand it over to Tiffany.

>> Hi. Thank you for this opportunity to have a conversation from the nursing perspective about stroke and COVID. I'm going to take a minute in between the slides to shift. I'm going to be talking about how the pandemic has really affected our stroke care. As it relates to volume and eventually community perspective and some of the things that as a community we have changed in the health care line to impact the volume of stroke patients.

No disclosures.

So what we know about stroke care and the pandemic is really just a drop in the bucket. In fact, our literature really only extends as far as data is recorded on how it has impacted our stroke care regime of 2020. So there is a lot to be studied and understood how it's really made an impact on our stroke care and outcomes. But what we do know is there is a clear association reported between cerebrovascular disease and COVID-19 period and that coexisting stroke and COVID-19 negatively influence our patient outcomes including higher mortality as well as functional outcomes.

Finally, really stroke here has been disrupted, and I think we all know that worldwide, and especially our stroke centers.

So early observations period when I say early observations, I'm talking about that first surge. Really, as far as our -- is extended. So across the nation, hospitals have reported a 30%-40% decrease in the value of patients presenting with stroke. There was a decrease in reperfusion therapies including TVA for large occlusion, and that TIA and minor stroke symptoms, patients with minor stroke systems are saying home for fear of contracting the virus.

And then there has been a reported increase in time from last known -- to hospital arrival in time from arrival to imaging.

And even with the guidelines stroke registry, they reported there was a decrease in stroke patient volume when compared with the previous year. But the positive note in early observations was that our quality measures remain very close to pre-pandemic thresholds. So we are really showing resiliency I think in our programs as it's related to door indoor out, door to needle, and door to puncture programs.

So anything about the stroke volumes, we also have to consider looking at the activations of stroke. So this was actually a study from northern Ohio. It's just one example. There are 19 different EDs that were evaluated, and we have to look at how many stroke activations they had pre-and post pandemic. They had a 34% decrease in just activation of stroke alone. However, the notice that there was an increase in TPO volumes.

So as COVID increase, our activations decreased in the north on Ohio. So nice study there.

Along the same lines, in general, with EMS at the hospital world, the number of EMS activations also went down. There was a 30% decrease in activated altogether and activations of 911. So this is kind of interesting, think later on they are starting to see an increase. However, in the first surge we noticed an increase in cardiac arrest once they did arrive to the patient's homes.

So where have all of our stroke patients gone? I know we all thought that decrease in stroke patients and scratched our head as far as why. So as a stroke community, we speculated a few reasons, but also reported from patient interactions in the hospital and some literature. So this is Arizona. It was everywhere. People took stay-at-home very literally. Stay-at-home the matter what the cause.

This was blasted all over every media avenue as far as social media or TV or even our government. So staying at home.

So the community thought process at the time said people on TV stay-at-home. Or the hospitals are overwhelmed. I think the media really covered that very well and how we might be putting our patients at risk if they were to come to our hospital. And so we know that's not the case. However, that's what they were seeing. And the other thing to consider, we were that it -- limiting visitors. So being alone in the hospital with any symptom, let alone stroke or otherwise is scary. And if I go to the hospital I might get COVID. So they are scared that they are going to contract the virus that they come into our facilities. And finally, I'm scared, so I'll take my chances at home.

American heart and stroke association did an excellent job kind of understanding this very early on, this dip in stroke volume spirit and they put out community awareness and I know a lot of health care systems across the country did the same thing. We are very involved in putting things out on social media that are facility source safe and stroke was an emergency. So whether the pandemic is here are not, we were ready for them, as well as this is really safer to call 911. Our systems were still in place.

And we also had emergency guidelines actually temporary community emergency guidelines during the coronavirus in 2019. So this was put out by the stroke association, stroke Council leadership. And the message that I wanted to kind of share about this special report was regulatory versus reality for stroke centers. Given the pandemic, we have a lot of constraints placed upon us and different resourcing and PPE and limited

stroke code. We really wanted to highlight that while our stroke centers have these benchmarks that we are working towards, that would be a goal and not necessarily an expectation period we are trying our very best. And I know we all are.

But also they highlighted that stroke systems of care was needed now more than ever to just collaborate from hospital to hospital system. And I think we have done a great job of that as well.

I think, too, we need to consider from back to me in the era of COVID-19. This was a guideline, emergency guideline put out and a lot of things that I think really is a consensus statement, this was pretty good about prehospital consent and proxy. Airway preparation so that we know that general versus conscious sedation is I think, people still gravitate towards one or the other as preference. But the statement set a lower standard for intubating or outside the sweet spot so as not to contract the virus from the patient because it is an aerial site -- aerosolizing procedure.

So when we talk about, nothing about some of the processes that have been put into place and how this might affect the patients coming to our facility. So recognition of symptoms. In our ED, we are all kind of COVID focus. We also need to be work neurologically focused because we know that there are patients out there. We have COVID 10 spec we have reduced response to insiders, and additional screening requirements for COVID. This represents a length of time. It might also in the community, recognition of symptoms, is someone comes along, their caregiver might not be able to recognize if they are having symptoms. So it could limit people coming into our centers to get care. And there has been an increased use of telemedicine across the board, whether by phone or video.

I think this is a positive change impacting our volumes as well. And a timely EMS response, considering there is an increased sanitation procedure, for turnover of our rigs and PPE procedures, increasing the time for EMS response.

And think about our mobile stroke units across the country. This is a wonderful resource, a limited resource for our communities, many of the nursing staff or EMTs however they are staffed, or going back to the emergency department to help. We are fortunate in Phoenix to have our local stroke unit up and running, but I know this is a hardship on some of the different mobile stroke units across the country.

And Vince transport to the stroke center. We have depleted hospital resources. Beds and staff availability. Some hospitals are now keeping their patients versus transferring them to a higher level of care given that the center might not have space for that patient population.

And in Arizona and many other parts of the country we have a centralized transfer center, kind of a sorting hat if you are a Harry Potter fan, but really the centralized transfer center across health care systems, making sure that COVID is distributed to where the resource is, but what about our stroke patients. How they are being dispirited to stroke centers or otherwise.

And finally, thrown back to me, a lot of hospitals have had a change in process, as far as not allowing the direct endovascular advanced imaging and when do we intubate? In the emergency department? The desk or squeak look sweet. So we have individual standards and how we are operating that process.

And finally I just want to read a bunch of questions, because I think that's where we are at. The current surge that we are in right now, I think Arizona is number 1 in the world for COVID plus stroke cases. So where we see an increase of in-hospital stroke alert activations. And ultimately have some -- and end up with a stroke. We see these as an in-hospital stroke. And an increase of stroke plus COVID admissions or readmissions. I was sending our stroke patients into the world without all the education we needed? That was hard enough without COVID. Now, we have increased support at the bedside and getting them this education, sending them on their way, and how is that transition of care managed, and it will that affect our readmission rates.

And well quality of care be compromised given increase hospital capacity and it decreased staff. As we have our stroke nurses plotting to other part of the hospital are stroke patients voting to other parts of the hospital, will we be able to maintain that quality of care.

And finally will we be able to capture that? I know in many hospitals given contingency and disaster charting and a lot of our stroke centers core natures to back to the bedside. So I'm just leaving you with those questions and kind to open it up for conversation. I appreciate the opportunity to be here speaking with you.

>> Thank you so much, Tiffany that was great. You can enter your questions online, but I'd also like to reach out to Claranne and Jen to get comments on how this has impacted your community.

>> I think we have seen exactly what Tiffany described early on. We saw a drop off of our stroke numbers. And I think your question that your ending on our dead on. I think we are seeing a lot more inpatient stroke alerts. All of us are being pulled to do other duties to continue to support this extended pandemic that we all hoped would have died out by now kind of.

>> At our facility we saw a drop, slight drop in March in stroke volumes, but by April we were back to our 2019 -- so that's been an interesting experience. So that's what we saw in 2019. It will be interesting to see what the first couple of quarters of 2021 will bring for us.

>> Is great. Any other comments, Tiffany?

>> I would just like to add that I think we are also seeing an increase in large vessel occlusion in the young. So I'm really interested in some of the data around that nationally.

>> I would agree. Much higher thrombectomy rates. To your point, younger cases are up.

>> I'm going to hand it off to Jennifer Henry.

>> Thank you. Just kind of building on the conversation that Tiffany started, just to give you some back story about where I'm coming to you from, the University of Tennessee Medical Center is around 8600 to 9 dead teaching hospital. We are a comprehensive stroke center, a designated trauma center, at least survey 21 county region right in the middle of Eastern Tennessee. Last year in 2020, we had over 1900 ED activations. And one point that I wanted to highlight for you all, and I think we may need to go back, let me get acclimated to the technology, as I was considering what information to bring today, and looking at what was out there, because there is actually quite a lot out there in the literature, people sharing their experiences. My task was to address nursing care in the hospital. And the challenges that we are facing seem to really fall into four categories. Those surrounding the initial evaluation, code stroke, and Tiffany has talk about some of those things, and it's interesting that what I found support exactly what

she shared. Challenges on the stroke nursing unit, issues surrounding discharge and that postacute care follow up, and then the support of our teams as we try to navigate this storm that we are all in the middle of.

And some of you may be sick of hearing the term, unprecedented, as I am, but I have to say it is a very good descriptor of what we are facing.

And so another fallout that I wanted to share with you all is going into this, pre-2020, all of our hospitals had a pandemic plan. And many others men have been involved in serving on our hospital incident command systems, being part of planning for the pandemic that we all thought would come eventually.

But the distinctive thing about this particular crisis is there is no playbook. There is no plan, no algorithm that really took into account the intensity of this particular illness or the lack of resources or the lack of accessibility to resources that we would all face. And I think that it has particularly impacted our very vulnerable stroke populations.

So one of the articles that I found, one of the studies that I found, was an exploration of clinicians perception of practice changes during the pandemic. And this was published in October. It was a survey of over 200 respondents from 39 states, most of them were from comprehensive stroke centers and I brought some of the point that I thought were interesting to share with you all today. 34% of those respondents felt that their outcomes or the care of their acute stroke patients had been unfavorably impacted by COVID-19. 80 1% experienced that decreasing overall volume that Tiffany mentioned. And the majority, over 60% reported that their facilities had plans in place and were implementing using PPE for all their stroke patients. Initially, that was a big ongoing challenge as we struggled to have access to that PPE. And over 60% also were limiting the number of practitioners in the room.

Other strategies that people have employed kind of all felt along similar lines. Treating all patients with acute drug symptoms as if they were COVID suspected positive. The implementation of a protected code stroke kind of approach where there is prehospital screening, NER screening, and an approach to limiting the number of practitioners at that patient bedside and follow-up. So the focus was maximizing our stroke patient care while protecting the very precious resource of our team members.

Testing if it was available. And implement it in that emergency department setting.

Additional changes that I saw throughout some of the sources that I reviewed involved adjusting or altering our post thrombolytic monitoring. Altering that frequency to minimize exposure and conserving PPE. We had guidance and support from the optimistic trial that was published pre-COVID. So a lot of facilities took that and applied it to the adjustments necessary.

Early on and even now, the information, the processes for changing definitely get day-to-day sometimes hour to hour within those days, and so we all had to be very quick to adopt kind of a dynamic mentality and that that daily. Utilizing telestroke technology in situations where we may not have utilized that before to assess patients or to educate patients or to limit using that technology using that within our own facilities to limit exposure.

And also utilizing that telestroke technology to prevent unnecessary transfers. If there is nothing to really be added by going to the comprehensive stroke center, maybe that patient is safer and better served to remain at the stroke facility.

Over and over again, I saw that people emphasized the need for stronger teamwork as Tiffany mentioned, the need for a stroke system of care is even more imperative now that was before. Good communication between facilities. The facilities in our community have really worked well together to manage this COVID onslaught. And so that is crucial to surviving this storm.

And I saw several references to using simulation training for stroke teams to identify safety threats within the protocols. Using that training to mitigate those threats. And in making sure that stroke teams and neuro unit nurses were very prepared to properly don and doff so less time was wasted and they were insured to be safe.

And other adjustment or alteration but I saw included in the neuro interventional areas Forsyth ahead multiple IR suites to designate a COVID room that was stocked with that enhanced PPE so it's readily available. Again, focusing maximizing care for all of our patients and reducing risk. Tiffany mentioned the lesson about intubation. And where does that happen? Does that happen prior to transport? In a negative pressure room, or do you set up your IR suites to accommodate that, getting those on complicated post thrombectomy patient out of the ICU as soon as possible so they can be freed up. And

staffing adjustments to help minimizing exposure, separating those with overlapping skill sets.

And when we think about the changes or the adjustments that we have had to make on stroke nursing units, I think the one that has impacted our patient population the most has been visitor restrictions, especially early on. We had no visitors. Now, we allow one designated visitor per patient. And that creates a significant struggle for our patients, for their families, and for our teens. On the front end for stroke teams, getting the history, getting the information surrounding onset and discussing treatment options becomes even more challenging that it can be under normal circumstances.

So and going forward, helping to keep those families connected with the care teams requires time. It requires engagement. It requires adoption of technology that maybe we weren't comfortable using before.

And helping our patients to stay connected to their family members is critically important. But again requires time and creates stress on an already stressed system. Other issues that I found that we have experienced here, the stroke discharge education that we also noted with, it's so important to prepare our patients forget past their stroke and manage their risk and move on. And that becomes much more difficult when those caregivers either family members aren't readily accessible to us. So again, we had to learn to apply the technology and make sure that the right people get the information needed. Sometimes there may need to be an adjustment to how we order PT, OT, and speech assessments. In my hospital, every patient got PT, OT, and speech. But maybe we need to make sure those consults are focused and not indiscriminate.

And discharge plans may need to be altered. Many of our patients who were identified for inpatient rehab for example, opted to go home rather than to another facility because they were concerned about further COVID exposure. So that creates a need for the team to adjust the discharge plan. Access to those postacute care facilities, inpatient rehab, skilled nursing, has been impacted. Our facilities here require testing prior to transfer. There are often delays due to lack of bed availability, and discharge home when medically stable instead of facility. And establishing follow-up points can be

challenging. Access to specialists and cardiologists may be impacted. And we are seeing telemedicine everywhere, where maybe we didn't see it before.

The other thing that we have had to address is how do we train our team members in a time that we are gathering together to do that hands-on training for everything may not be the best approach. We have had to learn what can be taught virtually what needs to be on the ground and how do you provide that safely for everyone? So I anticipate that we will learn more about this going forward this year, but it is a challenge for our teams. Community education also present some challenges. How do you do a virtual health fair for your local senior center? Utilizing our marketing contacts, social media, we did a couple of virtual events where we had some of our team and our community members log in, but we are going to be have to be more savvy and apply these -- this technology to this task as well.

And another point that I wanted to highlight, we are all super focused on our stroke and neuro populations – appropriately simple. But we are part of the whole hospital response to the pandemic, as part of the hospital response, the community response picks up what we have seen and what I'm sure many of you across the country have seen, is that as we are rolled up into that surge planning and implementation, it has impacted our resources that historically have been designated or dedicated to our patients. So we have seen neuro impact care units repurposed as COVID intensive care units. We see neuro critical care teams pulled into the care of COVID patients. Stroke patients placed on all service units with nurses who have never taken care of neuro to patients before. So that requires from us a concentrated effort to be there as leaders, as coordinators, as educators to provide that just-in-time training so these guys are ready to take care of our patients. At the same standard of care that we had before.

And then we have seen many places of innovative models of nursing care. Different ways to approach patient assignments to get the patients what they need with reduced staff, but due to COVID document team members of or other factors.

And their other stressors that really to our nurses that cause distress. Availability of care, access to resources. Access to beds. Staffing and patient ratios. And all of those struggles, tied up to the difficulty connecting with patients and families period and the continued isolation that many in our communities are experiencing.

So a big challenge that we have been a big responsibility that we have is to continue to work together as a team. This pandemic has exacerbated chronic challenges that we all knew were there, but it has brought them to the forefront. And also given rise to new challenges.

One kind of spark of hope that I have tried to focus on is yes, moral distress has been present for many of our team members, but that distress can give way to resilience. And is our responsibility to support that. The organizational support for our teens, the community support for teens, is important. That ongoing collaboration, partnership, we are all in the same boat together.

And then making sure that we acknowledge the need for self-care and supporting and helping where we can to do that. And then everybody needs a break every now and again. And we need to support each other support and encourage each other.

So I'm going to leave you with this thank you. Thanks to all of you for the work that you do every day. And with that, Claranne?

>> Thank you so much we are getting a lot of questions so we will address them at the end. We also getting a lot of comments with from people concurring with the scenarios and the information that our panel was sharing.

Any comments for Claranne or Tiffany on Jennifer's presentation about how you're being impacted in your region of the country?

>> I will go ahead. I just made a couple of notes so that I could share some of our experiences here. As far as the conversation around leveraging technology, I think one of the unique challenges is really bringing in the caregivers into the conversation. We very early on as a strict division set up a Zoom account, one of our vascular neurologists pointed out that could be a great idea to have conversations between the nurse and their providers as well as the patients if they were able. And I think this has really helped connect us with our patients' families when they are not able to be here. But second, there is such an innovative institution that developed nothing called medical memory. And we are using that as well where we are recording information and then the patients or their caregiver can logon and look at this media. So this is a part of a research project, but also a really big improvement in our patient satisfaction and quality of care.

And as far as training goes, it has been very difficult to train our stroke nurses, but also travelers. So in the first surge, we had a lot of travelers coming in and it's how do you get them up to speed. But in addition to that learning is an entirely new patient populace in such as COVID and all the nuances that go with that.

So we have developed huddle sessions and recall them stroke blitz sessions. So they are a down and dirty education at the bedside one-on-one with nurses. It's real-time education. And working to build that into our education for stroke. So that is applied education to the bedside and incidentally keeping up with the changes going on.

And finally, I would just say that I tend to be a glass half-full person picks up when going through hard times struggles or something so big as this pandemic, I really tend to look at what I'm seeing is a positive, pulling that out. So some of the things, just thinking about nursing practice and stroke care as limiting some of the documentation, which is always a positive, I think.

If we really need to be documenting certain things, it's a question, and developing new plans. Especially around TPA, I know we all have our protocols in place, but really, let's evaluate the patient outcomes based from these changes. So from a researcher cap, I think of opportunity there. So that's a lot to have been said, and I will hand it over to Claranne.

>> Any comments?

>> I just would like to add, I think it's been amazing, they said 2020 was the year of the nurse, and certainly the nurse has so much on the front lines at the bedside. I just have been awed by some of the innovative ways nurses have stood up through the pandemic, from taking things outside the room so they can keep titrating, some of the ICUs were using baby monitors to connect with the patients and not within feel like they are long. As well as some of our teams using iPads to do discharge instructions and sort of involve the family as much as possible with kind of connecting. I think early on we all saw that separation of family being at the bedside and really leveraging think technology from iPhones and iPads to kind of get connected to those loved ones. So again, really amazing stuff that is going on.

>> Great. Now, I will hand it off to Claranne, who will talk about a stroke surveyed during the pandemic.

>> Thank you. So just when you thought your having enough fun, then we get to recertification for early on through the pandemic, re-certifications were kind of put on hold. And as the pandemic continued on, we needed to sort of reinstate having the reviews that we are also excited to host when they come up or when you are starting off your first review.

So with that being said, I'm going to try to get the slides.

Where I work, we are a comprehensive stroke center. We are an hour north of Philadelphia. I have a company has a stork center on campus, and our open review was June 10-September 8. So we were right in the middle of the summer going into the fall and expecting a review. So that time kind of came and went again and we said okay, now what? We also have a primary stroke center that was open for review through November 6. So in past circumstance we would have our CSC review, have recovery time, and that host our view at the other campus.

We were lucky when the numbers dropped, to get that phone call from the joint commission saying we have you on the schedule. We are coming to visit you. And we are going to do your other school by staying a secondary. So we were excited to have that happen. It would be our fifth review.

So it couple things about getting ready. As we all know, it's a daunting experience getting ready for your site survey. So they have surveys, and they have put on hold some of the calls, but the actual surveys they are looking at the numbers ended up in a plan whether to come on-site or to do it virtually.

Soil tell you a little bit about our experience. I will say that they just posted a review process guide period for those of you who have been through this, that's your Bible.

That is your go to resource when you're getting ready for a survey.

With that being said, I did reach out to my friend, Jeannie, to say can you touch base with the joint commission and see if they have any words of wisdom for today's presentation. And they basically sent back a reply that they were doing reviews, both on-site and off-site. The review process has not really changed. However, the off-site process has a little bit of pre-review steps. And I will go over those with folks so that you can walk away with the information that you might need to prepare.

Certainly if COVID-19 is really a burden, you can postpone the review. But eventually you're going to have them come on-site, to walk through to see how your site is doing. So the best is to get an account executive, which your person can help you get assigned. So getting ready. You really need a plan. So that really hasn't changed except that your plan may look a little bit different in this pandemic circumstance.

So as the programmatic team, getting the team ready, getting ready to do this together, and a lot of meeting so you would have pulled people together, you're going to find that your transition to some of those platforms that Jennifer showed you. So depending what your organization is using, you're going to set up virtual gatherings where you can touch base with your team members for your organization. My suggestion is keep these really short. So short, powerful meetings versus an hour long, and that helps with critical time. We concentrate on electronic short review sessions as a good way to connect with staff and to prepare for the virtual process. We also used some practice sessions for the opening of the system tracer so that we could review with the leadership and key support team members what was included in our opening and our data tracer section. Gathered lots of feedback. For your prep team coming want to include the -- team members that are going to be critical to standing up in a virtual platform. And of course you are partnering with your regular Tory team that understands whatever organization does your certification.

I will say start early. Expect delays. So we shared with you our survey, our Windows on our anniversary, July 23 and 24, and the CSC survey was later than what we had expected. And our other survey was right on.

I can't stress enough how important it is to be nimble. All of us have learned one thing, and it's like the plans just keep changing. And I really like that the alphabet has 26 letters. You can go all the way from plan A, to plan Z. You kind of have to have multiple plans.

A few caveats with the virtual review. In our participation, we were able to have the reviewer come on-site, but over the weeks we got our notice and when they did our review, our number's had gone back up. So we kind of did a hybrid model where we had the reviewer, but we really didn't take them out to the units.

You are having the virtual review, the information that you see -- receive, it will be Zoom platform. So for many others, we have become connected to whatever platform the organization is using. Be it WebEx, Microsoft Teams.

So the semicolon platform has a few caveats with it. So you need to get a handle on what that looks like.

What starts as a phone call with your executive to go over and test your technology. So they give you that opportunity to make sure that you can connect. You have to have the ability to have a shared drive and be able to postdoc you met on that shared drive to share with the reviewer.

There will be a ready date once you have done your test connection, they will test about connecting with you and make sure your platforms are able to stand up to your can then make sure you can up load the document to the shared drive.

Then you will get your ready date. You're ready date means that they can move you into the scheduling window and then you will still get your seven day notice.

The tricky thing with the ready date as you start collecting your cases from that ready date. So when they reviewed us, they did not take any of the charts from March 1 until our ready date. And then from our ready date to the actual on-site visit, with a separate list.

The other piece is that it really turns a two day survey into a three-day survey. When you're doing this virtually, they start the afternoon proceeding and the start of your survey with doing your opening conference.

So your opening conference is done the afternoon prior to the start of the review and gives them the opportunity to go over the orientation of that program.

So creating a presence. Many of us who have been through surveyed know you would like to get that review in, we have signed them up, we try to figure out kind of where they are from, what kinds of things are there hotspots. How do we do this. Doing this virtually is a little bit harder. So you need to sort of have a plan for this. So you're not going to be able to get that room full of your leadership. You are going to need to consider how they're going to introduce themselves using the web platform. So much like Tiffany and Jennifer are online today, sharing their WebCams, we practice with our leaders to do the formal introductions at the beginning. Can you turn on WebCam and

say hello. I'm the director of medical operations. I'm going to turn my WebCam off so we can go to the opening presentation. Couple Mitch sure people sign of their full name. I'm sure you've had meetings where people sign in with their phone number, the user number, they want to see who was in the meeting.

You've got to turn off any pop-ups so they don't pop up during the presentation and you want to make sure there are clear directions to all attendees. We send out their information that we would be using WebEx, put can put things into the chat, and really define roles for everybody who was part of your virtual experience.

So with that being said, the key documents for the shared drive. This for many of us is a new step. I actually found this was a great way to get organized. I have been doing this for a few years, so I'm very comfortable with the paper binders copies of everything, the binders that are stacked so high, I have a Xerox box with things in case I have to take them out. I was a little uncomfortable when we're talking about doing this all online.

So think about when you're going digital, the super organize on your team. So and Klein is my clinical specialist. Absolutely my organizational genie. She helped us get organized. Create these folders, log into these folders, all that key information. Identify who is going to scan in these documents. So you need to scan, label, get them all catalogued into an organized fashion. And then you want to share this with your core team because they may need this information in the course of the survey. This takes a little bit of time. So you don't want to be doing this two days before they are coming. You want to get this done, if you are in your window for survey, there is a good chance you could be virtual, start doing this.

And even though we had them come on-site, we still used these virtual folders throughout the survey to sort of make it very portable.

A few things that you may want to have. Evidence of community programs. They did not let us slide because there was a pandemic. They are expecting us to get the message out about the hospital. Documentation of your annual review and approval of your CPGs I have never before had to show the minutes where we identify who was in attendance. Your letter of support from administration. This was our fifth survey, and they still wanted to see that written letter that said we were stood up as a supported area.

And then meeting minutes. They want to see those meeting minutes with the attendance record so they could make sure that the whole team was represented. So getting ready for them coming. There is that behind the scenes magic that folks have. So this is just a picture of our support center. So all the just logistical and tactical needs were coordinated in one large room with social distancing, PPE, and the ability to stand up our communication. So typically, we have folks from regulatory or patient care services or quality department, and our stroke program staff involved in that area. We downsized that to be socially distant, but these are the things you want to have to be available.

Some of the things that we did, were unit tours. We had tested with technology ahead of time. So we use a laptop with a WebCam and WebCam had the ability to turn around so we could see the screen, but then also said project who was being interviewed. Some folks have used in iPad. Again, look at signage for your device. Anybody that is occupied doesn't just pop into your meeting, and look out for broadcasting during travel. So we would ask Lane to review reviewer, we are going to go dark now, we will be moving. It will be about 5 minutes as we walked from here back into the ED room where we talk to the charge nurse.

You want to have patient and staff sensitivity. So the person who was operating a cameras that you're taking around, you want to be able to have them moderate what they are doing. Both on the side for the reviewer as well as the staff. Let them have clear instructions on how to contact if they have any difficulties during that experience. So the tracer activities that you're going out and you are tracing. So this was an example of what it looked like. We had a classroom where we had multiple computers set up where we could interact with our reviewer as well as our staff on the unit. And you can see from both angles what this looks like. We were socially distanced. We had gathered a bunch of computers so that people could have it, and there was a BYOD, bring your own device if they have it, so you have to sanitize, and you are good to go. And we were able to work through that.

It actually worked very nicely once you kind of get the hang of this.

So the tracing activities, much like you've seen in the past, they are going to trace that patient chart. You're going to need to have folks that can operate that chart and move

through it. I found the reviewers were very flexible. They did understand that bedside staff need to be providing care. It was easier for us to have a classroom, a large room where we could go to review those charts and then have multiple people have the ability to share their screen.

So if you have someone who has ED documentation, they are working with that ED chart. And then you share the screen when you are looking at the charging that is on the MedSurg floor.

Competence assessment and credentialing. We never this is two years of information. You want to think about how you're going to present this online. For many of us, we have been scrolling documents, and this can make someone very seasick when you are whipping through something to get to it.

The reviewers were very direct with giving us directions on what they wanted to see. Give us a clear checklist of information they would be looking at. Practice that. Because many of you are going to have to have multiple people share their screens to kind of pull it together with the documentation that it has.

If you're the past have had nurse educators that have had files that had certificates and things that staff have completed and the years passed, think ahead. Because all of this needs to be digitally able to be projected. So you need to scan that in and you need to be able to look at that. We did find that they did count those hours. They wanted to see the 8 hours for both years. They were serious about doing that.

The core team, having that pre-prepped and ready to go. The 80% reports for the ED folks, the review of the process, they want to see those for both years. And again, sending a clear instructions and the fact that this has to be live.

Looking at your matrix. What does your job discussion say? If your job description says you need to have trauma hours, you need to show the trauma hours. So is a copy him puts the copperheads of assessment of your time -- comprehensive assessment of your time for your staff.

All right. Getting toward the end. Issue resolution. So who was taking notes and who has command? If you have ever been the lead connected with that survey, you know this is a really vital role. You need someone who is scribing a knowing who to Cindy

shout outs to peer saying I need a copy of this policy, I'm going to talk to the director of speech therapy and get that set up for right after lunch.

Work closely to stand up any IOUs before the survey. The reviewers were very transparent and kindly towards us, everything that we were seeing and finding.

So the hot topic of today's presentation is what about COVID? So this is a question that they asked. So a lot of the things that Jennifer and Tiffany shared already are things that are realities in the workflow that we are experiencing in the last year. We put this into our opening presentation, so we talked about our adjusted workflows, minimizing monitoring, our testing plan for COVID and stroke admissions. We talked about trends that we were seeing in the community. Trends in being able to move patients through the care continuum. And we look at our pre-COVID, and are covered overall experience. To project that we have seen with regard to the quality of care for patients. And we did this in the opening so let's underwrite upfront and you shared that with our entire team so that they could see that this is indeed what we stood up with.

And lastly, just kind of tying this up, this is your time to shine. This is a process. Pick the reviewers' brain pick find ways to straighten your program. We asked really hired in excess speech therapist after their recommendations, so that was a win/win. We were excited about that.

Use this experience to further support your care delivery. Many of these reviewers travel throughout the country, so asking how they have seen this done in other programs, is there a place that you have seen this process done well? Who can I call? Again, really important. You are doing this to support stroke care delivery and to further improve your programs.

And when it's all over, celebrate this accomplishment. It doesn't feel the same, it doesn't like you can bring a big kick to your next meeting and anybody can get together. But you want to celebrate this accomplishment because it really is a special moment.

I'm going to turn it back over to Jeannie.

>> Thank you so much. We have gotten a ton of questions, but I think a lot of them have been answered as we have progressed through the program. These slides will be sent out to everybody. This is the last slide on some of the guidelines pick so if you have any interest and you are currently not participating, feel free to reach out to click

on that link and reach out to the American Heart Association staff. If you have any questions and would actually like to reach out to one of our panel today, feel free to shoot us an email and we will put you in touch with them.

A lot of people are absolutely concurring with a lot of your issues identified. One question I want to put out and actually, I sound like Barbara Walters from 20/20, can each of you name or is there any COVID intervention that has turned out to be a benefit that you think should be really kept post pandemic? Claranne, you can go first.

>> I think overall, as Tiffany mentioned, looking at the monitoring and seeing if there is a way to skinny that down a little bit for our nursing staff. That is one thing. I think the other piece is documentation, we made some changes to our documentation to rearrange things so it was a little bit tighter for the nursing staff and it would seem like that is a huge win. Kind of put everything, the vital signs and the neural assessment on one tab so they can go down the line and do that documentation.

>> Necessity is the mother of invention. Any comments, Tiffany or Jen?

>> I do. I have quite a few things that I would like to stick around, I think, as far as when COVID is over. Specifically leveraging technology to communicate with families. Think that has been an improvement that needs to stay. They are not always able to come in anyway, so I think that's excellent.

And some of the innovations that have come out of that.

The way we deliver education as a stroke program as well. We are in the process of we have written a script and are videoing our neural assessment so this can happen without a one-on-one education team, but also if you're at the bedside, you can review that education. What was that visual field testing again and kind of review that neural assessment.

I think to calmly Zoom meetings just from a stroke program perspective, I feel in some ways very different -- disconnected however very connected on a small level. So the Zoom shots, and speaking more frequently with our stroke team members now, and it seems easier to just kind of click on a click off in a Zoom meeting and bring people in. So I do think there have been positive inventions here.

>> And I would add, I agree with all the things that you ladies listed. I think for me, the collaboration and the strengthening of the partnerships across disciplines, across facilities, we need to keep that. We do.

>> So we know we could probably talk for another two hours to these ladies, but we are finishing up we are going to thank our panelists, and Amanda, you want to close out today?

>> Everyone, click on your email for certification of your attendance. And make sure to check your junk. Thank you for attending.

>> Thank you, everyone. Take care, ladies. Everyone stay well.