

NCS 20TH ANNUAL MEETING

# FORWARD

CARING, CURING + MOVING FORWARD



OCTOBER 17-21, 2022 • SAN ANTONIO, TX  
JW MARRIOTT SAN ANTONIO HILL COUNTRY

# ABOUT THIS YEAR'S EVENT

## WHY ATTEND

NCS is excited to bring together the neurocritical care community for five days of in-depth education focused on the challenges our community has overcome, how to address challenging cases we face regularly – and the challenges yet to come in our future. Join fellow neurocritical care professionals and advance your knowledge of neurocritical care. The NCS 20th Annual Meeting will present the most recent research and best practices in neurocritical care and will feature workshops and virtual master classes, a robust selection of educational breakout sessions, dedicated exhibit hall time to connect with our partners, and many networking events.

The NCS 20th Annual Meeting will feature the cutting-edge education, innovative speakers and unbeatable access to industry partners that you've come to expect from NCS.

Whether you join us in-person or virtually, attendees will have the opportunity to connect with neurocritical care professionals from around the world and learn about the latest advancements in neurocritical care. Topics this year include stroke, post-cardiac arrest, traumatic brain injury, advanced neuromonitoring, and more. As the only educational meeting solely focused on the science of neurocritical care, we hope you will join us!

## LEARNING OBJECTIVES

- Discern clinical practice and challenges for neurocritical care patients around the globe.
- Identify best practice strategies and clinical challenges when caring for neurocritical care patients with traumatic brain injury, intracranial hemorrhage, stroke and central nervous system infections.
- Examine ongoing clinical trials, controversies in clinical practice and end-of-life decision-making strategies in the care of patients with neurologic injury.
- Determine opportunities to use neuromonitoring, informatics, genomics and quality metrics in the neuroscience ICU to improve quality of care.
- Identify challenges and strategies for prognostication and management of critically ill patients with hypoxic-ischemic encephalopathy, near-brain dead conditions, and post-ICU syndrome.

## ACCREDITATION

*In support of improving patient care, this activity has been planned and implemented by Cine-Med and the Neurocritical Care Society. Cine-Med is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.*



JOINTLY ACCREDITED PROVIDER™  
INTERPROFESSIONAL CONTINUING EDUCATION

### Physicians

Cine-Med designates this Other activity (combined virtual and in-person) for a maximum of 68 AMA PRA Category 1 Credit(s)<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

### Nurses

This educational activity is approved for 68 contact hours for nurses.

### Pharmacists

This activity has been accredited for 6.8 CEU (68 credit hours) of continuing education credit.

## TARGET AUDIENCE



Physicians



Nurses



Pharmacists



Advanced Practice Providers



Trainees  
(including residents/fellows)

# SCHEDULE AT A GLANCE

All times below are listed in Central Daylight Time (CDT). Visit [www.neurocriticalcare.org/events/annualmeeting/schedule](http://www.neurocriticalcare.org/events/annualmeeting/schedule) for full schedule details.

Please note that the In-Person Workshops will be in San Antonio, and the Virtual Master Classes and Virtual Workshops will be online.

FRIDAY, OCTOBER 14	
9:00 a.m. – 1:00 p.m.	Virtual Workshops* <ul style="list-style-type: none"> <li>Applied Neuromonitoring</li> <li>Critical Care EEG - Basic</li> <li>Bioinformatics</li> </ul>
1:30 p.m. – 5:30 p.m.	Virtual Workshops* <ul style="list-style-type: none"> <li>Advanced Hemodynamics</li> <li>Critical Care EEG - Advanced</li> </ul>
MONDAY, OCTOBER 17	
4:30 p.m. – 6:00 p.m.	Professionalism & Leadership Session*
TUESDAY, OCTOBER 18	
8:00 a.m. – 12:00 p.m.	In-Person Workshops* <ul style="list-style-type: none"> <li>Airway Management</li> <li>Basic Transcranial Doppler (TCD)</li> </ul>
9:00 a.m. – 1:00 p.m.	Virtual Workshops* <ul style="list-style-type: none"> <li>Applied Neuromonitoring</li> <li>Critical Care EEG - Basic</li> <li>Bioinformatics</li> </ul>
12:30 p.m. – 5:00 p.m.	San Antonio Highlight Tour*
1:00 p.m. – 3:00 p.m.	Virtual Pharmacy Master Class*
1:00 p.m. – 5:00 p.m.	Virtual Advanced Practice Providers (APP) Master Class*
	Virtual Workshop* <ul style="list-style-type: none"> <li>Transcranial Doppler (TCD) Cases</li> </ul>
	In-Person Workshop* <ul style="list-style-type: none"> <li>Critical Care Ultrasound</li> </ul>
5:00 p.m. – 7:00 p.m.	Exhibit Hall Open & Welcome Reception
WEDNESDAY, OCTOBER 19	
7:00 a.m. – 7:50 a.m.	Breakfast Symposium
7:30 a.m. – 11:30 a.m.	Exhibit Hall Open & Networking Coffee
8:00 a.m. – 9:00 a.m.	Business Meeting & Awards Ceremony
9:00 a.m. – 10:00 a.m.	Opening Keynote: The Future of Neurocritical Care
10:30 a.m. – 12:00 p.m.	Clinical Trials: General Session

12:10 p.m. – 1:00 p.m.	Lunch Symposium
1:15 p.m. – 2:15 p.m.	<b>CONCURRENT SESSIONS</b>
	When the Sympathetic Storm Hits
	Making Decisions on Withdrawal of Life Sustaining Treatment and Aggressiveness of Care
2:30 p.m. – 4:00 p.m.	Translational Science Session
	<b>CONCURRENT SESSIONS</b>
	Joint Society of Vascular and Interventional Neurology (SVIN) & NCS Session
4:00 p.m. – 6:30 p.m.	Curing Coma® Campaign: What Are We Doing Today to Care For the Patient in Coma?
	Neurocritical Care Society Guidelines 2022
4:15 p.m. – 5:15 p.m.	Exhibit Hall Open
6:30 p.m. – 8:00 p.m.	Poster Session
	INCC Keynote: Voting Like Health Depends on It & Networking Event
THURSDAY, OCTOBER 20	
6:00 a.m. – 7:00 a.m.	Run for Research
7:00 a.m. – 7:50 a.m.	Breakfast Symposium
8:00 a.m. – 9:30 a.m.	<b>CONCURRENT SESSIONS</b>
	The Curing Coma® Campaign: What Are We Doing Today to Care for the Patient in Coma?
	Delivering on the Promise of Health Equity in Neurocritical Care: Leveraging Quality Improvement to Reduce Health Disparities
9:30 a.m. – 11:30 a.m.	Crossing the Bridge to Artificial Intelligence Together: A Roadmap to Equitable AI
	Exhibit Hall Open & Networking Coffee
9:45 a.m. – 10:45 a.m.	Poster Session

# SCHEDULE AT A GLANCE (CONTINUED)

All times below are listed in Central Daylight Time (CDT). Visit [www.neurocriticalcare.org/events/annualmeeting/schedule](http://www.neurocriticalcare.org/events/annualmeeting/schedule) for full schedule details.

Please note that the In-Person Workshops will be in San Antonio, and the Virtual Master Classes and Virtual Workshops will be online.

THURSDAY, OCTOBER 20 (CONT'D)	
11:30 a.m. – 12:30 p.m.	<b>CONCURRENT SESSIONS</b>
	Neurocritical Care Pharmacotherapy Debates
	Transfers and Transports of the Neurocritical Patient
	Late Breaking Science Session
12:40 p.m. – 1:30 p.m.	Lunch Symposium
1:45 p.m. – 2:45 p.m.	<b>CONCURRENT SESSIONS</b>
	Disorders of Consciousness in the Developing Brain: Can They Be Defined and How May They Be Treated?
	Invasive and Non-Invasive ICP Waveform Monitoring: Past, Present, and Future in Neurocritical Care
	Poster Platform
2:45 p.m. – 4:00 p.m.	Exhibit Hall Open & Snack Break
4:00 p.m. – 5:00 p.m.	<b>CONCURRENT SESSIONS</b>
	Complex Cases in Neurocritical Care with Outcome Discussion (CINCO) Sessions Translational Science Session
	Code ICH: Paradigm Shift and Call to Action
	Cerebral Autoregulation in Sepsis — Multimodality Monitoring and Advances in Care
6:00 p.m. – 8:00 p.m.	NCS 20th Anniversary Celebration & Reception

FRIDAY, OCTOBER 21	
7:00 a.m. – 8:30 a.m.	<b>CONCURRENT SESSIONS</b>
	Neurocritical Care Management of Perioperative Neurosurgical Complications
	Precision Post-Arrest Care at the Bedside
	Teleneurocritical Care: Practice in Pandemic Era
8:45 a.m. – 9:45 a.m.	<b>CONCURRENT SESSIONS</b>
	Neurocritical Care Nursing: Hot Topics
	Shedding Light on Acute Brain Injury: Using Optics to Measure Neurophysiology Noninvasively, Continuously, at the Bedside
	Perspectives on TBI across the Continuum
10:00 a.m. – 11:30 a.m.	<b>CONCURRENT SESSIONS</b>
	Encephalitis Across the Lifespan: Looking Beyond Infections
	Mechanical Ventilation in the Neuro-ICU: Challenges, Conflicts and Considerations in Acute Brain Injury
	Systemic Effects of Subarachnoid Hemorrhage: Biomarkers and Pathophysiology
11:45 a.m. – 1:00 p.m.	Closing Session: Neurocritical Care in 2042: What Does Our Fortune Say?
2:00 p.m. – 6:30 p.m.	San Antonio Highlight Tour*

\*Additional registration fees are required.

# EDUCATION HIGHLIGHTS



## OPENING KEYNOTE

### The Future of Neurocritical Care

**Thomas P. Bleck, MD, MCCM, FNCS**

The many disparate streams from which the Neurocritical Care Society eventually arose began to coalesce in the 1990s, and in the early 2000s the Society was founded to support the interests of people working in, among others, the fields of cerebrovascular disorders, head and spine trauma, status epilepticus, neurogenic respiratory failure, and neurologic complications of critical illness. Twenty years later, the problems remain the same; while some of the approaches are new, some are unchanged. There is much new science, but we are still pursuing some elusive major breakthroughs, and still confront many external issues that prevent progress. This talk will examine where we have come in the past two decades, and explore where we may be headed and what we need to do next.



## INCC KEYNOTE

### Voting Like Health Depends on It: Voter Registration in Health Care Settings

**Alister Martin, MD, MPP**

In total, 51 million potential voting-age citizens are not registered to vote in the United States. This group is disproportionately made up of the young, the poor, and people of color. These are the very same groups that disproportionately rely on the ER and other safety net institutions for non-emergency care because they simply have nowhere else to go. These groups are often plagued by lack of access to traditional forms of healthcare and are burdened by the upstream failings in policy that leads to a broken healthcare system that does not serve them. The ERs, clinics, and community health centers in their communities serve a critical role in providing on-demand care for the issues they face but they could do so much more when it comes to empowering the most vulnerable in the most fundamental of ways, helping them vote. This session will cover the growing movement of healthcare-based civic engagement and outline the over 300 hospitals, 25,000 healthcare providers, and over 100 medical associations and organizations that collectively helped nearly 50,000 patients get ready to vote in the 2020 election and are continuing to build voter registration access points into healthcare settings across the country through working with organizations like Vot-ER and Civic Health Month.

## CLOSING SESSION

Neurocritical Care in 2042: What Does Our Fortune Say?

**Moderator: Sarah Livesay, DNP, APRN, ACNP-BC, ACNS-BC**

**Speakers: Cherylee Chang, MD; Shweta Goswami, MD; Ebonye Green, MNSc, ACNPC-AG, CNRN, SCRn, APRN, FNCS; Claude Hemphill, III, MD, MAS; Naomi Niznick, MD and Eljim Tesoro, PharmD**

# EDUCATION HIGHLIGHTS (CONTINUED)

## IN-PERSON WORKSHOPS

*The following three (3) workshops will take place in person in San Antonio. These workshops require an additional fee.*

### Airway Management

**Tuesday, October 18 | 8:00 a.m. - 12:00 p.m.**

This hands-on workshop teaches fundamentals of airway management and critical care bronchoscopy. Brief didactic sessions cover indications, techniques and devices in case-based reviews. Participants then get to practice fundamental intubation skills including the use of airway rescue devices at instructor-led skill stations.

### Basic Transcranial Doppler (TCD)

**Tuesday, October 18 | 8:00 a.m. - 12:00 p.m.**

In this workshop will cover Transcranial Doppler techniques, interpretation of waveforms for hemodynamics assessment and overview of clinical applications of Transcranial Doppler. Topics will include the use of TCD for inpatient stroke assessment (including flow reversal, emboli monitor, assessment for shunt); TCD in monitoring SAH patients for vasospasm; using TCD for assessment of elevated intracranial pressure and cerebrocirculatory arrest; and pediatric applications.

### Critical Care Ultrasound

**Tuesday, October 18 | 1:00 p.m. - 5:00 p.m.**

This workshop for POCUS practitioners at the novice or beginner level will provide participants with rigorous instruction in the acquisition and use of point of care ultrasonography (POCUS) for cardiopulmonary assessments in the neurocritical care setting. Attendees will learn introductory knobology for image optimization using different POCUS machines and get hands-on practice for performing cardiac and lung POCUS at skill stations. Participants will receive high-quality pre-recorded lectures to prepare for this hands-on workshop, which will include the fundamentals and applications of cardiac and lung POCUS, case-based reviews, clinical algorithms for incorporating cardiac and lung POCUS in the rapid assessment and management of critically ill patients in the neuro-ICU.

## VIRTUAL MASTER CLASSES

*The following two (2) Master Classes will take place virtually and require an additional fee.*

### Advanced Practice Providers (APP)

**Tuesday, October 18 | 1:00 p.m. - 5:00 p.m.**

This master class will use a case study to discuss clinical challenges of subarachnoid hemorrhage management, the use of point of care ultrasound to guide management, and common ICU billing pitfalls. The interactive format will provide ample time for discussion.

### Pharmacy

**Tuesday, October 18 | 1:00 p.m. - 3:00 p.m.**

Expert faculty from across the country cover new, controversial, and evidence-based pharmacotherapy strategies for the neurocritically ill in a case-based and interactive learning environment.

## VIRTUAL WORKSHOPS

*The following six (6) workshops will take place virtually require an additional fee.*

### Applied Neuromonitoring

**Friday, October 14 | 9:00 a.m. - 1:00 p.m.**

This workshop provides case-based discussion of principles and practical implementation of multimodal neuromonitoring. Fundamentals of data acquisition, analysis, and visualization will be covered.

### Critical Care EEG - Basic

**Friday, October 14 | 9:00 a.m. - 1:00 p.m.**

This workshop provides case-based discussion of basic concepts of EEG and its use in critical care. This introductory workshop is meant for attendees with little or no formal EEG training, typically those who are not neurologists.

### Bioinformatics

**Friday, October 14 | 9:00 a.m. - 1:00 p.m.**

This workshop will provide practical didactic discussions of core concepts in data science as applied to neurocritical care research and expert-led hands-on experience with data manipulation and analyses, focusing on clinical, physiologic, and genomic data. This workshop is suitable for those with basic knowledge in statistics and computing, who wish to learn more about data science and informatics research. Coding experience (e.g. Python, R) is helpful, but not mandatory.

# EDUCATION HIGHLIGHTS (CONTINUED)

## VIRTUAL WORKSHOPS

The following six (6) workshops will take place virtually require an additional fee.

### Advanced Hemodynamics

Friday, October 14 | 1:30 p.m. - 5:30 p.m.

This workshop provides case-based discussion of pathophysiologic principles and clinical applications of invasive and minimally invasive hemodynamic monitoring modalities in critically ill patients with neurologic injuries.

### Critical Care EEG - Advanced

Friday, October 14 | 1:30 p.m. - 5:30 p.m.

This workshop provides presentations and case-based discussion of advanced uses of EEG as a neuromonitoring tool in neurocritical care, including quantitative analysis and neuroprognostication. The workshop will provide a theoretical overview, interactive group discussion with audience participation. This workshop is designed for neurologists, neurointensivists, physician assistants, nurses, physicians in-training and other health professionals involved in the care of critically ill patients. Basic knowledge of EEG patterns is required to attend this advanced workshop.

### Transcranial Doppler (TCD) Cases

Tuesday, October 18 | 1:00 p.m. - 5:00 p.m.

This session will cover 25-30 cases of neuro-ultrasound. The course will go through 4-6 cases per hour to teach interpretation for TCD. This session is only suitable for attendees with preexisting familiarity and knowledge of Transcranial Doppler principles, image acquisition and basic waveform interpretation.



## POSTER AND PLATFORM PRESENTATIONS

The core of the NCS Annual Meeting is the showcase of new work from the most important investigators — YOU! Posters will be on display during the event. Join Poster Professors during each poster session to discuss specific topic areas that interest you. Top-scoring abstracts will be selected as Oral Platform Presentations; top-scoring abstracts that are not selected for Oral Platforms will be selected as Distinguished Posters.

# SPONSORS & EXHIBITORS\*

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*\*Sponsors and Exhibitors as of 6/1/22*

# CONFERENCE REGISTRATION

REGISTRATION TYPE	EARLY REGISTRATION <i>through August 26</i>	LATE REGISTRATION
Healthcare Professional and Trainee Member	\$550	\$685
Physician Member	\$835	\$1,020
Group A Physician Member	\$455	\$570
Group B Physician Member	\$185	\$230
Healthcare Professional & Trainee Member Non-Member	\$655	\$820
Physician Non-Member	\$970	\$1,150
Group A Physician Non-Member	\$455	\$570
Group B Physician Non-Member	\$185	\$230

## WORKSHOPS AND MASTER CLASSES

REGISTRATION TYPE	EARLY REGISTRATION <i>through August 26</i>	LATE REGISTRATION
Workshops	\$355	\$395
APP Master Class	\$90	\$115
Pharmacy Master Class	\$60	\$85

More information about registration types can be found online at [www.neurocriticalcare.org/events/annualmeeting](http://www.neurocriticalcare.org/events/annualmeeting).

# CONFERENCE INFORMATION

## HOTEL AND TRAVEL

Nestled amid 600 acres of oak-covered hills in Texas Hill Country, JW Marriott San Antonio Hill Country Resort & Spa is a luxury haven within a stunning landscape. For more information about the conference hotel and travel information, visit [www.neurocriticalcare.org/events/annualmeeting/hotel-travel](http://www.neurocriticalcare.org/events/annualmeeting/hotel-travel).

**JW Marriott San Antonio Hill Country**  
23808 Resort Pkwy  
San Antonio, TX 78261  
**\$269/night +\$16 resort fee**



## REGISTRATION CANCELLATION POLICY

### Cancellation by NCS

If for any reason beyond NCS' control, NCS determines that the 20th Annual Meeting must be canceled, shortened, delayed, dates changed, or otherwise altered or changed, the participant understands that any registration fees paid for the in-person event will be automatically transferred to the virtual experience. Participant also understands and agrees that NCS shall not refund the registration fees paid and that all losses and damages that participants may suffer as a consequence thereof are their responsibility and not that of NCS or its directors, officers, employees, agents or subcontractors. Participants understand that it may lose all monies it has paid to NCS for participation in the Annual Meeting, as well as other costs and expenses it has incurred, including travel, lodging, etc.

### Cancellation by Individual

Because most NCS Annual Meeting sessions will be available for on-demand viewing, no refunds will be granted. Substitutions of registrants can be made by Friday, September 2, 2022, without a fee, by contacting the registration team at [registration@neurocriticalcare.org](mailto:registration@neurocriticalcare.org). *Please note: Any hotel reservations must be canceled separately and directly with the hotel.*

If for any reason (including illness) you would like to change your attendance from in-person to virtual, or virtual to in-person your registration will be converted at no cost (additional fees will apply if switching from virtual to in-person). If the event shifts to a fully virtual event, all registrations will be converted to virtual attendee registration, and the cancellation policy will apply to any termination requests.

## FREQUENTLY ASKED QUESTIONS

For more information and answers to all of your questions, NCS has created a **Frequently Asked Questions page** on the Annual Meeting website that will be regularly updated with more information about the in-person and virtual events, health and safety regulations, continuing education credits, and more.