

# Accreditation, Credentialing, Certifications: Landscape & Road Ahead

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HEALTH<sup>SM</sup>



# Disclosures

- President of American Society of Neuroimaging
- Member of the ASN Certification Committee
- Member of the Neurocritical Care Society Board of Directors
- No relevant financial disclosures

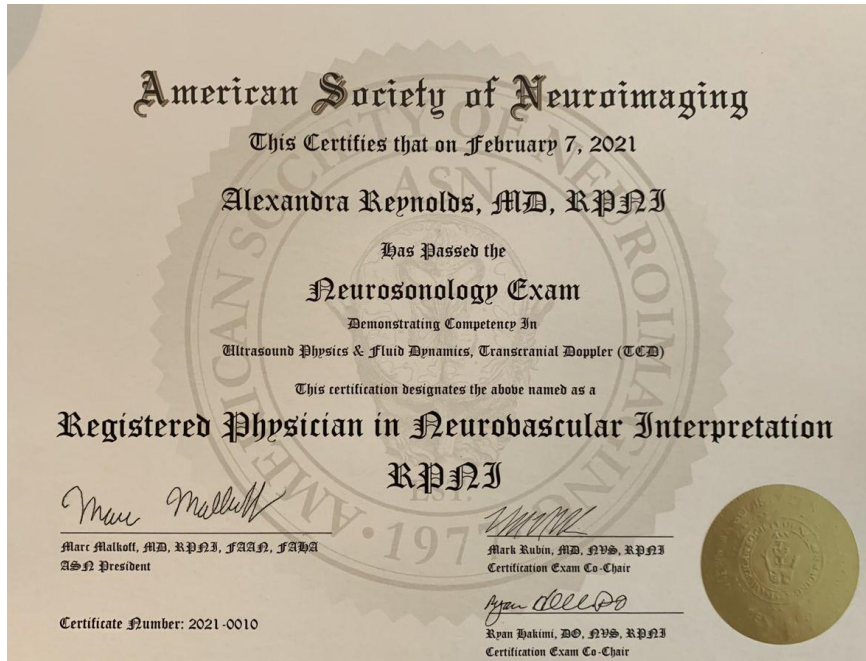


# Objectives

- Delineate the difference between certification of individuals and accreditation of facilities
- Discuss the history of the Neuroimaging Board Certification Exam
- Describe how to become certified as an RPNI (Registered Physician in Neurovascular Interpretation) for TCD and/or carotid ultrasound
- Review the Neurovascular Specialist Credential (NVS)
- Elaborate on the importance of IAC Accreditation and RPNI certification at Comprehensive Stroke Centers

# Terminology

- Accreditation: Refers to facilities
- Certification: Refers to individuals
  - (physicians, technologists, etc.)



# Neuroimaging Certification

- 1970's-1990's
  - Nearly all MRI/CT were originally read by neurologists mainly in private practice
- 1990's-2005
  - ASN Administered The NI Board Exam
- 2005
  - ASN with other subspecialties of neurology joined UCNS and handed over the accreditation of programs and certification of physicians to UCNS
- 2005-2025
  - The number of UCNS accredited programs does not increase
- 2025
  - ASN Board votes unanimously to leave UCNS and regain control of board certification exam and accreditation of fellowship programs

# Neuroimaging Certification

- 2025
  - Numerous meetings with UCNS to address ASN concerns about inability of international physicians to seek certification, administrative burdens on fellowship programs, etc. do not lead to mutually acceptable concessions
- 2025
  - ASN grants all current UCNS NI Diplomates a new ASN NI Certificate and eliminates all maintenance of certification for prior UCNS NI Diplomates
- 2026
  - A select group of NI Board Certified Physicians convenes at the ASN Annual Meeting to begin creating a new contemporaneous exam which will reflect modern clinical practice
  - Plan will be to launch the examination some time in 2027 through our online exam platform used for RPNI and NVS exams once eligibility criteria and the examination have been finalized

# Neurology's role in NI will increase

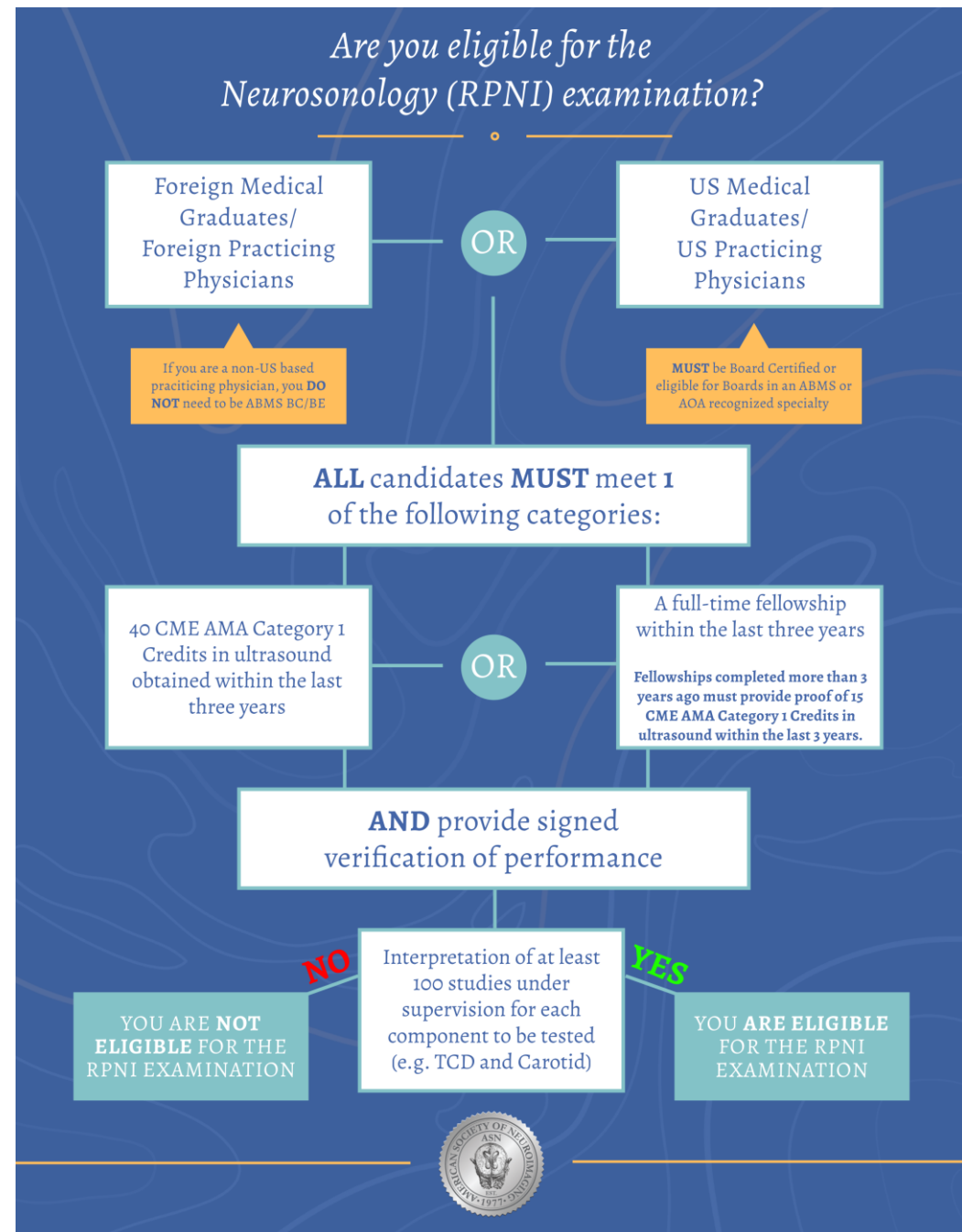
- Please attend the next lecture where collaboration with Intersocietal Accreditation Commission and the commercial availability of portable MRI and CT will define the next chapter of NI

# Certification

- RPNI (Registered Physician in Neurovascular Interpretation)
- **ELIGIBILITY REQUIREMENTS**  
Hold a valid **medical license** (or equivalent);
- US Practicing Physicians: Be **Board Certified or eligible for Boards in an ABMS or AOA** (American Osteopathic Association) recognized specialty;
- **Foreign Medical Graduates not practicing as physicians in US: do not need to be ABMS BC/BE;**
- **40 CME AMA Category 1 Credits in ultrasound** obtained within the **last three years**  
**OR**
- **Full-time fellowship within the last three years** (15 CMEs for fellowship training over 3 years ago); and
- Verification of **performance and/or interpretation of at least 100 studies under supervision** for each component to be tested (e.g. TCD and carotid).



# RPNI Eligibility



# Certification

- **Neurovascular Specialist** (physicians and non-physicians)
- **ELIGIBILITY**
- Completion of a minimum of a two-year allied health education program that is patient-care related; a Bachelor's degree; Master's degree (or equivalent) **OR** an Active RVT, RVS, RDMS, or ARRT (VS) specialty credential. Individuals holding a certificate in Intraoperative Neuro-Monitoring (IONM), Advanced Practice Providers, and Critical Care Nurses are eligible assuming they meet ALL of the other requirements.
- **12 months of full-time (or equivalent) clinical experience performing ultrasound**
- **Performance verification of at least 100 supervised studies** for each component to be tested (e.g. TCD and Carotid Duplex) accompanied by a hand-signed, original letter from either a supervising physician, supervising sonographer, or an Educational Program Director, attesting to the length and scope of ultrasound experience
- Documentation of a total of **30 CME/CEU credits**, 15 credits specific to each credential area sought (15 for TCD/ 15 for Carotid Duplex)

# NVS Eligibility

Are you eligible for the  
Neurovascular Specialist (NVS) exam?

Have you completed a minimum of a two-year allied health education program that is patient-care related, a Bachelor's degree, or a Master's degree (or equivalent)?

Do you have an Active RVT, RVS, or ARRT (VS) Specialty credential?

Do you hold a certificate in Intraoperative Neuro-Monitoring (IONM)?

Are you a Registered Nurse?

Are you an Advanced Practice Provider?

and

**MEET ALL THREE (3) OF THE FOLLOWING REQUIREMENTS:**

- 12 months of full-time (or equivalent) clinical experience performing neurovascular ultrasound
- Performance verification of at least 100 supervised studies for each component to be tested (e.g. TCD and Carotid Duplex) on a hand signed, original letter from a supervising physician, supervising sonographer, or Education Program Director.
- Documentation of a total of 15 CME/CEU credits specific to each credential area sought (15 for TCD/ 15 for Carotid Duplex)

NO

YOU ARE NOT  
ELIGIBLE FOR THE  
NVS EXAMINATION

YES

YOU ARE ELIGIBLE  
FOR THE NVS  
EXAMINATION



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# Upcoming Exam Dates



THE AMERICAN SOCIETY OF NEUROIMAGING

ABOUT ANNUAL MEETING CERTIFICATION EDUCATION JOURNALS MEMBERSHIP

## NEUROSONOLOGY (RPNI) EXAMINATION

Please contact Andrea Powell at [andrea@asnweb.org](mailto:andrea@asnweb.org) for any questions regarding the RPNI exam.

### Upcoming Examination Dates:

**February 4 - 10, 2026**

Register for the February 2026 RPNI examination

**Bangkok, Thailand: January 20, 2026**

Register for the January 2026 exam in Bangkok, Thailand

#### Registration Rates:

Physician Member: \$1,275

Physician Non-Member: \$1,775

Physician in Training Member: \$1,020

Physician in Training Non-member: \$1,425

Foreign Practicing Physician Member [Group A](#): \$420

Foreign Practicing Physician Member [Group B](#): \$220

### RPNI EXAM FREQUENTLY ASKED QUESTIONS

### SUBMIT A QUESTION

### REFUND POLICY

No refunds will be given for the exam.

### FOREIGN PRACTICING PHYSICIANS (outside of the U.S. and Canada)

Foreign practicing physicians are required to be a member of ASN and submit five (5) CME credits per year to maintain their RPNI certification. RPNI exam cost is dependent on your country. To determine the grouping of your country, [click here](#).



THE AMERICAN SOCIETY OF NEUROIMAGING

ABOUT ANNUAL MEETING CERTIFICATION EDUCATION JOURNALS MEMBERSHIP

## NEUROVASCULAR SPECIALIST (NVS) EXAMINATION

Please contact Andrea Powell at [andrea@asnweb.org](mailto:andrea@asnweb.org) with any questions regarding the NVS exam.

### Upcoming Examination Dates:

**February 4 - 10, 2026**

Register for the February 2026 NVS examination

#### Registration Rates:

Current ASN Member: \$225

Non-Current ASN Member: \$275

**The Neurovascular Specialist (NVS) Credential** is now accepted as an appropriate Technical Director/technical staff credential for facilities applying for **IAC Vascular Testing Accreditation** (Extracranial and/or Intracranial Cerebrovascular Testing).

Visit [intersocietal.org/programs/vascular-testing](https://intersocietal.org/programs/vascular-testing) to view the Standards or [asnweb.org](https://asnweb.org) for details about the NVS credential.

**IAC** Improving health care through accreditation  
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# Laboratory accreditation

- IAC (Intersocietal Accreditation Commission)
  - Medical Director (with RPNI or RPVI certification)
    - Continuing experience (interpret a monthly minimum of cases)
  - Technical Director (usually sonographer with RVT, RVS, RTVS, or RPNI)
    - Continuing experience (interpret a monthly minimum of cases)
    - CME
  - Medical Staff (other interpreting physicians)
    - Continuing experience (interpret a monthly minimum of cases)
  - Technical Staff (other scanning sonographers)
    - Continuing experience (interpret a monthly minimum of cases)

# Laboratory accreditation

- Standard reporting
- Standard criteria (vasospasm, stenosis, etc.)
- Quality improvement (routine case review by peers)

# Trivia

- Approximately what percentage of Comprehensive Stroke Centers (TJC + DNV) are IAC accredited in Intracranial Vascular Testing?
  - A) 5%
  - B) 10%
  - C) 50%
  - D) 75%
  - E) 100%

# Trivia

- Approximately what percentage of Comprehensive Stroke Centers (TJC + DNV) are IAC accredited in Intracranial Vascular Testing?
  - A) 5%
  - B) 10%
  - C) 50%
  - D) 75%
  - E) 100%

# TJC and DNV TCD Requirement for CSCs

- TJC
  - “Transcranial Doppler”
- DNV
  - “CR.2g Transcranial Doppler shall be available when needed”

# Current State of Affairs

- *“Nothing makes a health system jump more than a regulatory requirement tied to getting paid”*
- Currently only 4 states have regulations specifying who can perform and/or interpret TCDs
- Currently CMS does not require accreditation for TCD to get paid
- Currently vascular ultrasound programs don't require sonographers to learn TCD
- Low supply of sonographers and low supply of desire to become accredited = no action
- *Until... A Lawsuit!*



# Litigious Society vs Just Culture

- When something goes wrong who is to blame? It has to be someone's fault!
  - The attending physician? “The buck stops with the attending”
  - The individual most closely associated with the error?  
“Whoever touched the patient last gets all the credit or all the blame”
  - The hospital/clinic lab who allowed a non-certified physician to be credentialed to interpret a test? Do they even have a formal credentialing process?
  - The hospital/clinic lab who allowed a non-certified person to perform the test? Are they even a technologist?

# Lawsuits related to TCD

## Key points about TCD ultrasound lawsuits:

### Potential claims:

A patient might sue claiming the healthcare provider:

- Improperly performed the TCD ultrasound, leading to inaccurate readings.
- Misinterpreted the TCD results, failing to identify a significant neurological issue.
- Failed to adequately inform the patient about the risks and limitations of the TCD test.
- Did not follow up on abnormal TCD findings with further testing or treatment.


Failure to  
diagnose

Failure to  
treat

### Common scenarios:

- Cases involving stroke patients where a TCD could have detected potential problems with blood flow in the brain.
- Situations where a TCD is used to monitor patients during surgery or other procedures, and complications arise due to alleged misinterpretation of the results.

### Defense arguments:

- The TCD was performed correctly and the results were within normal limits.
- The patient's condition was not clearly identifiable based on the TCD alone, requiring further diagnostic tests.
- The patient was properly informed about the limitations of the TCD ultrasound. 



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[transcranial doppler ultrasound lawsuit - Google Search](#), accessed  
1/14/25

# Lawsuits related to TCD

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## PRESS RELEASE

# New York Doctor Charged for Receiving Kickbacks

Monday, December 2, 2024

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### For Immediate Release

U.S. Attorney's Office, District of Massachusetts

BOSTON – A New York doctor was charged today in federal court in Boston for allegedly receiving kickbacks in exchange for ordering medically unnecessary brain scans.

Dr. Vishnudat Seodat, 75, of Mattituck, N.Y. was charged and has agreed to plead guilty to one count of conspiracy to commit health care fraud. A plea hearing has not yet been scheduled by the Court.

According to the charging documents, Seodat, an internist in Long Island, N.Y., was a licensed medical doctor in the State of New York for approximately 36 years. It is alleged that from approximately June 2013 through December 2019, Seodat conspired with others, including a principal for a mobile medical diagnostics company that performed transcranial doppler (TCD) scans, to order hundreds of medically unnecessary TCD scans in exchange for kickbacks. TCD scans are brain scans that measure blood flow in parts of the brain. It is further alleged that Seodat and his co-conspirators used false diagnoses to order the unnecessary brain scans, for which a co-conspirator would submit claims to Medicare and other insurance companies, including private insurance companies, on behalf of the medical diagnostic company for payment. In exchange, Seodat was paid cash kickbacks of



# Lawsuits related to TCD

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## PRESS RELEASE

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<https://www.justice.gov/>, accessed 1.14.24



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PRISMA HEALTH

# Lawsuits related to TCD

## Connecticut Ophthalmologist Sentenced to Prison for Five-Year Health Care Fraud Scheme

Friday, May 10, 2024

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For Immediate Release

U.S. Attorney's Office, District of Massachusetts

### Ordered to pay \$1.34 million in restitution

BOSTON – A Connecticut doctor was sentenced yesterday in federal court in Boston for receiving kickbacks in exchange for ordering medically unnecessary brain scans.

Dr. Donald Salzberg, 69 of Avon, Conn., was sentenced by U.S. Senior District Court Judge Douglas P. Woodlock to one year and one day in prison, to be followed by one year of supervised release. Salzberg was also ordered to pay \$1.34 million in restitution to Medicare, Medicaid and private insurers. In July 2022, Salzberg pleaded guilty to one count of conspiracy to commit health care fraud and one count of conspiracy to receive kickbacks.

Salzberg, a licensed medical doctor in the State of Connecticut for nearly 40 years, owned and operated Donald J. Salzberg, M.D., an ophthalmology practice in West Hartford, Conn. From 2014 through 2019, Salzberg conspired with a principal for a medical diagnostics company that performed transcranial doppler (TCD) scans – brain scans that measure blood flow in parts of the brain – to order hundreds of medically unnecessary TCD scans in exchange for kickbacks. Salzberg and his co-conspirator used false patient diagnoses to order the unnecessary brain scans, for which the co-conspirator would submit claims to Medicare and other insurance companies on behalf of the medical diagnostic company for payment. **In exchange, Salzberg was paid cash kickbacks of \$100 to \$125 per test that he ordered, as well as sham administrative services fees. The scheme resulted in fraudulent bills of over \$3 million to Medicare and private insurance companies.**

Acting United States Attorney Joshua S. Levy; Roberto Coviello, Special Agent in Charge of the U.S. Department of Health and Human Services, Office of Inspector General; Jodi Cohen, Special Agent in Charge of the FBI Boston Division; Harry Chavis, Jr., Special Agent in Charge of the Internal Revenue Service's Criminal Investigation Division, Boston Field Office; Carol S. Hamilton, Regional Director of the U.S. Department of Labor, Employee Benefits Security Administration, Boston Regional Office; Ketty Larco Ward, Inspector in Charge of the U.S. Postal Inspection Service, Boston Division; and Christopher Algieri, Special Agent in Charge of the U.S. Department of Veterans Affairs Office of Inspector General, Northeast Field Office made the announcement. Assistant U.S. Attorney Howard Locker of the Health Care Fraud Unit prosecuted the case.

<https://www.justice.gov/>, accessed 1.14.24



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# The Role of the Leader

- “When you do the right thing you will always make money”
- Ensure optimal patient care decisions
  - Achieve the highest standard
  - Demand excellence
  - Constantly look to improve
- Motivate your team to improve
  - Encourage your team to become NVS certified
  - Set up a career ladder system
  - Don't let physicians without RPNI certification interpret studies



# AAN recommendations on use of ancillary testing (Level A)

## Tests of Cerebral Perfusion: Transcranial Doppler Ultrasonography

### *Recommendation 31 Rationale*

Transcranial doppler ultrasonography is widely available and relatively easy to perform at the bedside. In approximately 10% of adults, skull thickness precludes adequate insonation.<sup>56</sup> Detection of oscillating flow or systolic spikes in proximal large intracranial arteries (internal carotid, middle and anterior cerebral, posterior cerebral, basilar, and vertebral arteries) is consistent with BD/DNC in adults.<sup>56,57</sup> It is not difficult to differentiate between the absence of any signal for technical reasons and the flow pattern seen in patients with absent cerebral perfusion, thereby meeting criteria for BD/DNC. It has not been validated in children.

### *Recommendation Statement 31*

Clinicians may use transcranial doppler ultrasonography in adult patients as an ancillary test to aid in the diagnosis of BD/DNC and should not use transcranial doppler ultrasonography as an ancillary test for children (Level A).

## **Pediatric and Adult Brain Death/Death by Neurologic Criteria Consensus Guideline**

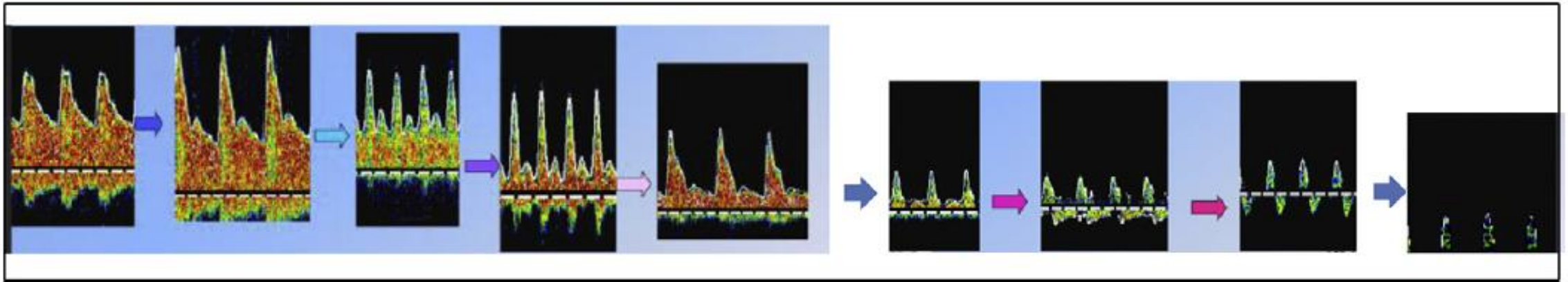
Report of the AAN Guidelines Subcommittee, AAP, CNS, and SCCM

December 12, 2023 issue

101 (24) 1112-1132

<https://doi.org/10.1212/WNL.000000000207740>

# TCD Waveform Progression to Brain Death



**Fig. 10.** TCD waveform progression from normal MCA to cerebral circulatory arrest. (Courtesy of A. Razumovsky, PhD.)

Hakimi, R, Alexandrov, AV, Garami, Z. Neuroimaging: Neuro-ultrasonography. *Neurologic Clinics* 38 (2020) 215–229.

# Brain Death Remains a Controversial Legal Matter for Some

## Examples of brain death lawsuits

### **Fonseca v. Smith**

A California lawsuit challenging the state's legal definition of brain death. The lawsuit was filed after a hospital decided to stop life support for a brain-dead boy. The court of appeals affirmed the lower court's dismissal of the lawsuit. [🔗](#)

### **Aden Hailu's case**

The father of a 20-year-old woman who was declared brain dead in Nevada filed a lawsuit to prevent the hospital from stopping organ support. The Supreme Court of Nevada reversed the district court's ruling, noting that the determination of brain death was not clear. [🔗](#)

### **Jahi McMath's case**

The family of Jahi McMath filed a lawsuit after the hospital declared her brain dead and stopped life support. The family argued that McMath was not dead and that she should continue to receive treatment. [🔗](#)

## Factors that contribute to brain death lawsuits

### **Social, religious, and psychological issues**

Some people, such as members of certain religious groups, may believe that withdrawing mechanical ventilation is the same as euthanasia. [🔗](#)

### **Inaccuracy in determining death**

The credibility of the medical profession may be affected if the public distrusts the determination of brain death. [🔗](#)

### **Variability in brain death protocols**

The practice of determining brain death varies across hospitals in the United States. [🔗](#)

With TCD utilization expected to increase as an ancillary test for brain death testing, the interpreting physicians credentials will become a point of contention



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# The Future Role of TCD and the Law

- With TCD utilization expected to increase as an ancillary test for brain death testing, the interpreting physician's credentials will become a point of contention
- Don't wait to be sued. Become Certified

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[www.asnweb.org](http://www.asnweb.org)



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January 15 - 17, 2027

Omni Hilton Head Oceanfront Resort

Hilton Head, SC



Questions

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