

Handbook for Candidates Certification for

Neurophysiologic Intraoperative **Monitoring CNIM**

ACCREDITED ISO/IEC 17024 PERSONNEL CERTIFICATION

ANSI National Accreditation Board

ABRET Executive Office 111 E. University Drive., #105-355, Denton, TX 76209

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The Certification Examination for Neurophysiologic Intraoperative Monitoring (CNIM) is designed and written for the advanced level Neuroprofessionals and formerly trained NIOM professionals who are currently practicing in an intraoperative environment.

This handbook contains necessary information about the CNIM examination.

Please retain it for future reference.

Candidates are responsible for reading these instructions carefully.

This handbook is subject to change – Please refer to the <u>ABRET website</u> for the most up-to-date information.

Introduction

ABRET is a nonprofit credentialing board. ABRET supports the concept of voluntary certification by examination for health care professionals in neurophysiologic intraoperative monitoring (NIOM). Certification focuses specifically on the individual and is an indication of current knowledge in NIOM. ABRET does not guarantee the job performance of any individual.

Objectives of ABRET

TO ESTABLISH COMPETENCY IN NEUROPHYSIOLOGIC INTRAOPERATIVE MONITORING BY:

- 1. Providing a standard of knowledge in NIOM required for certification.
- 2. Establishing and measuring the level of knowledge required for certification in NIOM by means of an objective, computer-based written examination.
- 3. Formally recognizing those individuals who meet the eligibility requirements of ABRET and pass the Certification Examination in Neurophysiologic Intraoperative Monitoring.
- 4. Encouraging continued professional growth in NIOM through mandatory continuing education and recertification.

Non Discrimination Statement

ABRET – Neurodiagnostic Credentialing & Accreditation does not discriminate on the basis of age, gender, race, religion, national origin, marital status, or handicapped condition.

Administration

The Certification Program is sponsored by ABRET. The Certification Examination in Neurophysiologic Intraoperative Monitoring is administered for ABRET by the Professional Testing Corporation (PTC): 1350 Broadway – Suite 800, New York, New York 10018 – (212) 356-0660 – PTC website - www.ptcny.com

Questions concerning the Certification Examination in Neurophysiologic Intraoperative Monitoring should be addressed to the ABRET Executive Office: 111 E. University Dr. #105-355, Denton, TX 76209 – (217)

726-7980 - www.abret.org or by email: Tami@abret.org

Fees

Application Fee for the Certification for	
Neurophysiologic Intraoperative Monitoring	\$700
Rescheduling Fee 29-5 days prior to scheduled appointment (but still within the 3-month testing period)	
Paid directly to Prometric (see page 5)	\$50

THERE ARE NO REFUNDS, EXTENSIONS, nor TRANSFER OF FEES

2025 CNIM Eligibility Chart

CNIM Pathway I: CAAHEP Accredited NIOM Program

- 1. Graduate of an accredited Program
- 2. Documentation of 100 NIOM cases
- 3. Current CPR/BLS certification

CNIM Pathway III: Bachelors Degree

- 1. Bachelors Degree (or higher degree)
- 2. Documentation of 150 NIOM cases
- 3. 30 hours of NIOM-related education
- 4. Current CPR/BLS certification

CNIM Pathway II: R. EEG T. or R. EP T.

- 1. Current R. EEG T. or R. EP T.
- 2. Documentation of 150 NIOM cases
- 3. Current CPR/BLS certification

CNIM Pathway IV: Non-CAAHEP NIOM Program

- Certification of completion from an ABRET-Recognized Program
- 2. Documentation of 150 NIOM cases
- 3. Current CPR/BLS certification

The CNIM credential is achieved upon successfully passing the CNIM Exam

NIOM-Related Education must be earned through ASET, ASNM, or ACNS and can be earned at any point during the NIOM experience within the last 5 years. No more than 15 hours may be earned from ASET journal quizzes.

Completion of the CNIM Documentation Form

- 1. The Candidate must be the primary technologist in the set-up, troubleshooting and monitoring of each case listed.
- 2. Observation of an NIOM case may not be included in the required cases, but supervised cases are acceptable, as long as the requirements listed above are met.
- 3. ABRET will accept documentation of up to two cases per day. Do not submit more than the requested number of cases.
- 4. NIOMs must be within the last 5 years with 10% of NIOMs completed within 24 months of application.
- 5. Monitoring performed in the operating room during a surgical procedure should be included. Preop testing and procedures do not satisfy this requirement.
- 6. Documentation forms will be randomly audited which can delay or negate eligibility.

The CNIM credential is awarded for five years. See information in <u>Recertification tab of the ABRET</u> website.

After 3 unsuccessful attempts to pass the examination within a 2-year timeframe, candidates must wait 6 months and submit an additional 15 hours of Continuing Education before being eligible to test.

Petition of Eligibility – Visit <u>ABRET.org to find</u> the petition form and instructions.

Candidates have three (3) months from the status of "Eligible to Test" date to sit for the examination.

After the 3-month period, candidates will need to reapply for the examination and pay a new application fee.

THERE ARE NO REFUNDS, EXTENSIONS, nor TRANSFER OF FEES

CAAHEP Accredited NIOM Programs (Pathway I)

CAAHEP Program Directors will receive their students' and graduates' results in their individual CAAHEP Program School Report.

Laboure College - Milton, MA

MPowerHealth CNIM Academy – Addison, TX
University of Connecticut – Storrs, CT

University of Michigan – Ann Abor, MI UPMC Presbyterian – Pittsburgh, PA

Graduates of a *Formerly Accredited* CAAHEP program may apply under EEG Pathway I and are subject to audit. Contact the ABRET Executive Office with questions.

Non-CAAHEP Accredited NIOM Programs (Pathway IV)

Program Directors will receive their students' and graduates' results in their individual Program School Report.

Accurate Neuromonitoring IONM Training & Education

Program - Fairfield, NJ

Institute of Health Sciences - Hunt Valley, MD

Medsurant Health Academy - Mason, OH

NMA Academy - Las Vegas, NV

MindLight Academy - Indianapolis, IN

Seastnan Medical IONM Trainee & Advanced Clinical Education Program - Kansas City, MO

SpecialtyCare Intraoperative Neurophysiologic Monitoring

Training Program - Brentwood, TN

The IOM Academy - Acworth, GA

The IONM School by AMS – Springdale, AR

The University of New Mexico Hospitals IONM Training Program

Albuquerque, NM

TNA Clinical IONM Program

Quick Tips Before Proceeding with the Application Process

Your name must match exactly with the name shown on current government-issued photo ID, such as a driver's license or passport. Do not use nicknames or abbreviations.

*CNIM Documentation forms are available on the ABRET website.

*Have all required eligibility documents ready to be uploaded into your ABRET Certemy Account. *PDFs are best.

*Retain copies of all uploaded documents for your records.

*Keep this HANDBOOK forreference.

Application Procedure

Applications for the ABRET examinations should be completed online through the ABRET website. www.abret.org

- 1) Read the Handbook for Candidates and followinstructions.
- 2) Visit ABRET.org click on EXAMS and select Pathways & Application under CNIM
- 3) Scroll down to select the appropriate eligibility pathway to apply under.
- 4) Log into your ABRET Certemy or Create a new ABRET Certemy account.
 - When you begin a new application for your first ABRET exam, you will be asked to create a user account and
 password. You will use this same account for recertification and future ABRET exams, so keep this information for
 later use
- 5) Complete the application by inputting your information and uploading your eligibility requirements including payment of the \$700 examination fee.
 - Most major credit cards are accepted.
 - Ensure Checks identify your name as an exam candidate and the ABRET exam you are applying for. Mail checks to: ABRET Executive Office – 111 E. University Dr., #105-355, Denton, TX 76209

^{*}Italicized programs provide online/distance learning.

Application Procedure (continued)

Upon verification of your eligibility requirements and application, your registration for the exam will be sent to PTC. See the "Scheduling Examination" section of this handbook for information for scheduling your exam.

A denial of eligibility for certification may be appealed in writing and sent to ABRET within 30 days. See **APP-9** & **APP-10** of ABRET Examination Policies posted on the ABRET website under Principles.

After exam results are uploaded into your ABRET Certemy account, proceed as directed:

Pass Results: The CNIM credential is awarded for five years. See information in ABRET's Recertification webpage.

<u>Fail Results</u>: Candidates are provided one (1) exam attempt per application submission within the established 3-month time frame. Please contact ABRET to reassign your application at 217-726-7980 or by submitting a <u>Contact Us email</u>. You will essentially need to repeat ALL steps of the online application process to reassign.

Candidates who do not pass the CNIM exam after 3 unsuccessful tries within a 2-year time frame will not be allowed to retest for 6 months and will be required to submit 15 NIOM-related education credits.

* Please do not contact the ABRET office about your results until you receive your OFFICIAL test results. You will not be able to reapply until the OFFICIAL test results are in.

Quick Tips Following the Application Process

- *Candidates should retain copies of all uploaded documents submitted for eligibility requirements.
- *Application status will be PENDING until all steps of the application, including payment, are completed:
 - o If you paid by CHECK, your application will not be completed until payment is received.
 - o You may have been randomly selected for audit. You or your supervisor will be contacted by our auditor with any questions or instructions on next steps.

Scheduling Your Examination

Candidates cannot schedule an examination appointment until they have received a Scheduling Authorization from the Professional Testing Corporation (PTC) via email.

Scheduling Authorizations will be emailed to candidates from notices@ptcny.com approximately 2–5 business days after the status of "Eligible to Test" is achieved. Please ensure you enter your correct email address on the application and add the 'ptcny.com' domain to your email safe list. If you do not receive a Scheduling Authorization within two weeks of achieving "Eligible to Test" status, contact PTC at (212) 356-0660 or online at www.ptcny.com/contact for a duplicate.

The Scheduling Authorization will indicate how to schedule your examination appointment with Prometric as well as the dates during which testing is available. Appointment times are first come, first serve, so schedule your examination appointment as soon as you receive your Scheduling Authorization in order to maximize the availability for your preferred location and preferred date.

After you make your test appointment, Prometric will send you a confirmation email with the date, time, and location of your exam. Please check this confirmation carefully for the correct date, time, and location. Contact Prometric at (800) 741-0934 if you do not receive this email confirmation or if there is a mistake with your appointment.

Note: International candidates may also schedule, reschedule, or cancel an appointment online at prometric.com.

Scheduling Your Examination (continued)

Current government-issued photo ID (driver's license or passport) must be presented in order to gain admission to sit for the exam. **Temporary, paper driver's licenses are not accepted.** It is recommended to have a printed copy of the Scheduling Authorization as well as Prometric appointment confirmation.

It is the candidate's responsibility to contact Prometric to schedule the examination appointment.

Arrival at the testing site at the appointed time is the responsibility of the candidate. Plan for weather, traffic, parking, and any security requirements specific to the testing location. Late arrival may prevent you from testing.

*It is highly recommended the candidate becomes familiar with the testing site's location prior to appointment.

Changing Your Examination Appointment

To reschedule current examination appointment to a different date within your three (3) month testing period, you MUST contact Prometric either online at www.prometric.com/abret or by phone at (800) 741-0934.

Rescheduling Fees:

30 days prior to the scheduled appointment, there is NO (\$0) Rescheduling Fee.

29-5 days prior to the scheduled appointment (but still within the stated 3-month testing period), there is a **\$50.00** US Rescheduling Fee paid directly to Prometric.

*NO Rescheduling is Permitted Less than 5 days prior to scheduled appointment.

Candidates have three (3) months from the status of "Eligible to Test" date to sit for the examination.

After the 3-month period, candidates will need to reapply for the examination and pay a new application fee.

THERE ARE NO REFUNDS, EXTENSIONS, nor TRANSFER OF FEES

Special Accommodation Requests

ABRET and PTC support the intent of and comply with the Americans with Disabilities Act (ADA) and will take steps reasonably necessary to make testing accessible to persons with disabilities covered under the ADA. According to the ADA, an individual with a disability is a person who has a physical or mental impairment that substantially limits a major life activity (such as seeing, hearing, learning, reading, concentrating, walking) or a major bodily function (such as neurological, endocrine, or digestive system).

The information you provide and any documentation regarding your disability and test accommodations is confidential and is not included in scoring or reporting.

All approved testing accommodations must maintain the psychometric nature and security of the examination. Accommodations that fundamentally alter the nature or security of the exam will not be granted. Note that accommodation for an examination (test accommodation) may not be the same as accommodations provided by your employer for your job. You can find more information about testing accommodations under the Americans with Disabilities Act (www.ada.gov).

Requests for Test Accommodations must be uploaded with the candidate's application and fees at least 8 weeks before the start of your testing period. You must complete and upload both Part 1 and Part 2 of this Form at the same time. Missing information or incomplete Forms will result in a delay in processing.

To request test accommodations, complete the following steps:

- 1. Download the Request for Test Accommodations Form, available from www.ptcny.com or by calling PTC at (212) 356-0660.
- 2. Complete Test Accommodations Form with your doctor/healthcare professional.

Special Accommodation Requests (continued)

3. Upload the completed and signed Request for Test Accommodations Form with the online exam application. Submit your application at least 8 weeks prior to the start of your chosen testing period.

If your Form is incomplete and/or not received at least 8 weeks before the start of the testing period, we cannot guarantee that we can make these test accommodations in time for you to test. Therefore, your application may need to be reprocessed for another testing period, and you would need to pay the reprocessing fee.

NOTES:

- Only those requests made and received on the official Request for Test Accommodations Form will be reviewed.
- All requests must be made at the time of application. Accommodation cannot be added to an existing exam appointment.
- Do not go to www.prometric.com or contact Prometric to request test accommodation as they are not authorized to approve accommodations. All requests for test accommodation must be submitted on the PTC Request Form.
- If you need to use your cell phone or another electronic device to monitor a medical condition, such as diabetes, please be sure to include this on Part 1 of the Request for Test Accommodations Form so that we can notify Prometric in advance.
- If you are a nursing parent and will need to use a breast pump during your exam, please complete Part 1 of the Request for Test Accommodations Form and submit it at least 8 weeks before your testing period to allow time to make suitable arrangements at the test center.
- Only pre-approved test accommodation will be permitted on the day of the examination. Test center personnel are not authorized to make any changes to the test accommodation on the day of the testing session and any such change may result in your examination score being canceled.

Accommodations cannot be added to an existing exam appointment

Application Agreement

1. **Application.** I certify that all the information contained in my application is true and complete to the best of my knowledge. I hereby authorize ABRET and its officers, directors, employees, and agents (collectively, "ABRET") to review my application and to determine my eligibility for certification.

2. Compliance with ABRET Rules.

- **A.** I have read and agree to abide by ABRET's policies and procedures, including but not limited to those listed below. I will read and keep up to date with these rules.
 - i. Handbook for Candidates (including the Code of Ethics and Disciplinary Policy);
 - ii. Use of Credential and Trademark Policy; and
 - iii. ABRET Examination Policies.
- **B.** I agree that ABRET may take action regarding my application, examination, or certification in accordance with its Disciplinary Policy, and that the penalties for violation of an ABRET rule include (but are not limited to) denial, revocation, or limitation of my certification.
- **C.** As specified within the Disciplinary Policy, I agree to notify ABRET of any change in name, address, telephone number, or email address, and of any development bearing on certification such as (but not limited to) suspension, revocation, or expiration of a state license to practice, being sued by a patient, or being investigated or reprimanded by a state regulatory board.
- **3. Cooperation.** I agree to cooperate promptly and fully in any review of my application, examination(s), or certification, and I agree to submit any additional information requested.
- **4. Examination Confidentiality.** I am seeking admission to take the examination(s) for the purpose of pursuing certification, and for no other purpose. Because of the confidential nature of the examination(s), I agree to not make or keep copies, excerpts, or notes of examination materials, and to not use or divulge information learned from the examination(s). The examination(s) is/are the exclusive property of ABRET, and I will not use examination information in any way without the express prior written consent of ABRET.

5. Examination Administration.

- **A.** I agree to abide by ABRET's reasonable rules regarding examination administration. ABRET may refuse my admission to an examination if I do not have the proper identification (valid photo ID and eligibility notice), or if administration has begun. The proctors may take steps as they believe necessary to maintain a secure and proper examination administration, including (but not limited to) relocating me before or during the examination.
- **B.** If I am refused admission or fail to appear at the examination site, or if my examination performance is voided based upon my behavior, I agree that I will not receive a refund of the application or examination fees and there will be no credit for any future examination.
- **C.** I understand that review of the adequacy of examination materials will be limited to computing accurate scoring; I hereby waive all further claims of examination review.
- **D.** I acknowledge that ABRET is concerned with reporting only valid scores. I agree that ABRET may cancel an examination score if there is adequate reason to question its validity because of misconduct or other circumstances.
- **E.** A passing score is required for credentialing in all instances.
- **6. Continuing Compliance.** I understand and agree that it is my responsibility to maintain and demonstrate continuous compliance with all ABRET policies and procedures.

7. Certification Marks.

A. The Neurophysiologic Intraoperative Monitoring credential and the stylized "CNIM" logo are the sole and exclusive property of ABRET and are subject to all applicable trademark and other rights of ABRET as owner

Application Agreement (continued)

under United States intellectual property law and international conventions. I agree to abide by ABRET's instructions regarding use of its intellectual property, and to not use this intellectual property in any way without the express prior written consent of ABRET.

B. I agree to correct at my own expense any inaccurate or unauthorized use by me of ABRET's credential and logo. I agree that if I refuse to make corrections, then ABRET is entitled to obtain all relief permitted by law, including but not limited to injunctive relief to enforce its rights with respect to the protection of its name, credential, logo, and other intellectual property.

- **8. Information Release.** I agree that ABRET may release information regarding my application and certification record to state and federal authorities, licensing boards, employers, and others. This information includes (but is not limited to) ABRET's findings regarding review of my application, fraudulent statements made by me, information indicating noncompliance with laws or regulations or with policies of other organizations, and the pendency or outcome of disciplinary proceedings.
- 9. Duration of Credential. This Application Agreement will become effective as of the date of acknowledgment upon submitting my application and will remain in effect for the duration of my application review. If I am granted certification, the terms of this Application Agreement will automatically continue in effect for the duration of my credential. I acknowledge and agree that initial credential is awarded only for a five (5) year period, and that completion of recertification requirements, recertification applications, and reviews will be required to maintain my credential.

10. Waiver of Claims & Indemnification.

- A. I hereby waive all claims against ABRET arising out of my application and my participation in the certification program, including (but not limited to) claims arising out of (i) any release of information to state and federal authorities, licensing boards, employers, and others, and (ii) any investigation and review of my application and certification by ABRET. If ABRET is required by law to disclose confidential information, the individual(s) whose information is released will be notified to the extent permitted by law.
- **B.** I agree to indemnify ABRET for any third-party claims arising out of any action taken pursuant to the policies and procedures of ABRET with regard to my application, the examination, or my certification. In addition, I agree to indemnify ABRET for any third-party claims arising out of my professional practice and related activities.
- **C.** The provisions of this Waiver of Claims & Indemnification section do not extend to claims based on the gross negligence or willful misconduct of ABRET.
- **D.** My obligations and rights and those of ABRET under this Waiver of Claims & Indemnification section will survive beyond the termination or expiration of my certification and remain in full force and effect.
- 11. Governing Law & Venue. This Agreement is governed exclusively by the laws of the State of Texas, without reference to its choice of law doctrine. The parties agree that the sole jurisdiction and venue for any litigation arising from this Agreement is the appropriate federal court for the Eastern District of Texas or state court located in Denton County, Texas. If a dispute arises, the parties shall make a good faith attempt to resolve the dispute through dialogue and negotiation prior to pursuing court action.

Upon submitting the application for "CNIM" you will be asked to acknowledge that you have read and understand this Application Agreement and agree to its terms in consideration for the opportunity to seek certification from ABRET.

Information Release: If granted certification, you will be authorizing ABRET to release your name and the fact that you have been granted certification to newspapers and other publications, and to release your name, employment information, address, and email address in ABRET's online directory and mailing list. You may opt out of this process by notifying the ABRET office in writing.

Examination Administration

The Certification Examination for Neurophysiologic Intraoperative Monitoring professionals is administered on a daily basis, Monday through Saturday, excluding holidays, at computer-based testing facilities managed by Prometric.

In the event of inclement weather, check the <u>Prometric website for site closures</u>.

Prometric's website provides information on what you can expect on your test day, including a walkthrough of checkin and security procedures: www.prometric.com.

Rules for Examination

Please read the information below carefully. You are responsible for adhering to the examination rules while at the testing center.

- 1. You must present your current driver's license, passport, or US Military ID at the testing center. Candidates without valid ID will NOT be permitted to test. Temporary or paper copies of your ID will not be accepted.
- 2. No Electronic devices that can be used to record, transmit, receive, or play back audio, photographic, text, or video content, including but not limited to, cell phones, laptop computers, tablets, Bluetooth devices; wearable technology (such as smart watches), MP3 players (such as iPods), pagers, cameras, and voice recorders are permitted to be used and cannot be taken in the examination room. Prometric provides lockers for your personal items.
- 3. No papers, books, calculators, rulers, or reference materials may be taken into or removed from the testing
- 4. No questions concerning content of the examination may be asked during the examination session. The candidate should read carefully the directions that are provided on screen at the beginning of the examination session.
- 5. Candidates are prohibited from leaving the testing room while their examination is in session, with the sole exception of going to the restroom.
- 6. Bulky clothing, such as sweatshirts (hoodies), jackets, coats, and hats (except hats worn for religious reasons), and most types of jewelry may not be worn while taking the examination. Proctors will ask you to remove such items and place them in your locker. Please see Prometric Security for more information.
- 7. All watches and "Fitbit" type devices cannot be worn during the examination.
- 8. No food/beverages are permitted inside the testing room. Leave these items in your assigned locker.

Accessing cell phones and electronic devices at any time while you are taking the exam is prohibited. You can only remove snacks, drinks, medicine, or personal health care items from your locker. No backpacks, bags, purses, or clothing can be removed while your exam is in session.

Contact PTC at (212) 356-0660 or www.ptcny.com/contact with any questions about the Examination Rules.

VIOLATION OF ANY OF THE RULES LISTED ABOVE MAY LEAD TO FORFEITURE OF FEES, DISMISSAL FROM THE TESTING ROOM, AND CANCELLATION OF YOUR TEST SCORES.

Quick Tips Before Examination Day

- *Hours and days of availability vary at different centers. You will not be able to schedule your exam appointment until you have received a Scheduling Authorization from notices@ptcny.com.
- *It is highly recommended the candidate becomes familiar with the testing site's location prior to your appointment.
- *This Handbook provides the Content Outline for the Examination. Use it to help guide your study in preparing for the examination.

Content of the Examination

- 1. The Certification Examination in Neurophysiologic Intraoperative Monitoring is a computer based examination composed of multiple-choice, objective questions with a total testing time of four (4) hours.
- 2. The content of the examination is described in the Content Outline below.
- 3. The questions for the examination are obtained from individuals with expertise in neurophysiologic intraoperative monitoring and are reviewed for construction, accuracy, and appropriateness by a separate group of subject matter experts.
- 4. ABRET, with the advice and assistance of the Professional Testing Corporation, prepares and reviews the examination.
- 5. The Certification Examination for Neurophysiologic Intraoperative Monitoring will be weighted in approximately the following manner:

I. Preparation and Application of Fundamental Concepts	25%
II. Intraoperative Phase	25%
III. Post-Operative Phase	13%
IV. Provider Communication and Documentation	27%
V. Safety and Ethics	10%

Content Outline

I. Pre-Operative Phase

- A. Patient History
 - 1. Review planned intraoperative procedures and patient diagnosis, history, and imaging results to determine the structures at risk, pre-existing conditions, comorbidities, and the relevant modalities that should be monitored.
 - 2. Review patient history/physical and medical conditions to identify pre-existing conditions that might affect the monitoring or outcomes.
 - 3. Perform pre-operative neuroassessment in relation to modalities being monitored and structures at risk that could impact the study.
- B. Equipment and Electrode Setup

Determine and prepare the appropriate equipment and supplies required for the monitoring and ensure proper set up of equipment that minimizes risk to surgical team and optimizes quality of data acquisition.

C. Patient Setup

Assess skin integrity, prepare the sites, securely apply recording and stimulating electrodes at the appropriate electrode sites for the monitoring plan, and modify placements as required.

II. Intraoperative Phase

A. Baseline Signal Acquisition

Check impedance and obtain pre-incision baseline values.

- B. Monitoring/Signal Change Recognition
 - 1. Collect data and monitor for neurophysiologic changes using NIOM modalities.
 - 2. Assess impact of any significant surgical, anesthetic, technical, or physiologic events in a contemporaneous manner.
- C. Troubleshooting

Identify artifacts or technical problems and employ troubleshooting techniques as appropriate to optimize data acquisition.

Content Outline (continued)

III. Post-Operative Phase

- A. Remove electrodes from the patient and equipment from the surgical field, clean the electrode sites, and safely dispose of sharps.
- B. Clean and disinfect reusable equipment per infection control standards.
- C. Perform post-operative neuro assessment in relation to modalities being monitored and structures at risk that could impact the study.

IV. Provider Communication and Documentation

- A. Confirm and document the surgical plan and monitoring requirements with the surgical team to determine appropriate monitoring plan or communicate monitoring protocol and confirm and document any variations ordered by attending surgeon.
- B. Communicate the monitoring plan to the patient/caregivers in a manner consistent with their ability to understand and obtain.
- C. Confirm, report, and document pre-incision baseline data with interpreting physician and surgical team.
- D. Communicate any significant surgical, anesthetic, technical, or physiologic events in real time with the interpreting physician and surgical team.
- E. Annotate or document any significant surgical, anesthetic, technical, or physiologic events in a contemporaneous manner.

V. Safety and Ethics

- A. Perform post-operative inspection of all NIOM equipment, ensuring equipment is in working order and recognizing need for routine service or impoundment.
- B. Practice universal precautions and respect proper distance from sterile field.

Sample Questions

- 1. Cortical potentials will be most affected by which of the following agents?
 - A. Narcotics
 - B. Barbiturates
 - C. Inhalational anesthetics
 - D. Neuromuscular blockers
- 2. Which of the following is a far-field potential?
 - A. N20
 - B. P14
 - C. Wave I
 - D. Erb's point
- 3. Which of the following is an effect of using alternating click polarity?
 - A. Reduces stimulus intensity
 - B. Minimizes stimulus artifact
 - C. Increases amplitude of wave I
 - D. Improves signal to noise ratio

- 4. ANKYLOSIS
 - A. Foot drop
 - B. Wrist drop
 - C. Fused joint
 - D. Arterial occlusion
- Grounding the stimulated limb during a SSEP procedure decreases
 - A. stimulus artifact
 - B. stimulus intensity
 - C. stimulating electrode impedances
 - D. spread of stimulating current.

ANSWERS TO SAMPLE QUESTIONS: 1. C, 2. B, 3. B, 4. C, 5. A

References

The following references, or recent editions of the following, may be of use in preparing for the examination. The list does not attempt to include all acceptable material, nor is it suggested that the Certification Examination in Neurophysiologic Intraoperative Monitoring is necessarily based on these references.

Recommended Resources:

- 1. Husain AM. (2014). A Practical Approach to Neurophysiologic Intraoperative Monitoring, 2nd Edition. Demos Medical, New York, NY. ISBN ebook: 9781617051791; ISBN print: 9781620700150
- 2. ACNS Guidelines: https://www.acns.org/practice/guidelines
- 3. ASNM Practice Guidelines: https://asnm.org/guidelines-and-position-statements/
- 4. Simon MV. (2018). Intraoperative Neurophysiology A Comprehensive Guide to Monitoring and Mapping, 2nd Edition. Demos Medical, New York, NY. ISBN: 9781620701171
- 5. Jahangiri F. (2012). Surgical Neurophysiology, 2nd Edition. CreateSpace Independent Publishing. ISBN: 9781475164985
- 6. Møller AR. (2011). Intraoperative Neurological Monitoring, 3rd Edition. Springer. New York, NY. ISBN ebook: 9781441974365; ISBN print: 9781493938971
- 7. Nuwer MR and MacDonald DB. (2022). Handbook of Clinical Neurophysiology. Volume 186. Elsevier. Amsterdam, NL. ISBN eBook: 9780128198278; ISBN print: 9780128198261
- 8. Nuwer MR. (2008). Intraoperative Monitoring of Neural Function Volume 8: Handbook of Clinical Neurophysiology. Elsevier, ISBN: 9780444518248.
- 9. Russell GB and Rodichok LD. (1995). Primer of Intraoperative Neurophysiologic Monitoring. Butterworth-Heinemann, Newton, MA. ISBN:
- 10. Zouridakis G and Papanicolaou AC. (2000). A Concise Guide to Intraoperative Monitoring. CRC Press, Boca Raton, FL. ISBN eBook: 9780429120497

Additional Resources:

- ABRET Code of Ethics & Standards of Practice. https://abret.org/about/ethics-professional-conduct/
- AORN. Perioperative Standards and Recommended Practices (updated annually). (www.aorn.org)
- ASET The Neurodiagnostic Society Position Statements and National Competency Skill Standards.
- (www.aset.org)
- ASET Position Statement on Skin Safety during EEG Procedures A Guideline to Improving Outcome –
 Jan 2017. (htps://wwww.asset.org/files/public/Skin Safety During EEG Procedures.pdf)
- Bonner AM, Davidson P. Infection prevention: 2020 review and update for neurodiagnostic technologists. *Neurodiagnostic J.* 60(1): 11–35. https://doi.org/10.1080/21646821.2020.1701341
- Bonner AM, Davidson P. Technical Tips: Keeping it clean during COVID-19. Neurodiagnostic J. 60(3):195–207. https://doi.org/10.1080/21646821.2020.1805267
- United States Department of Health and Human Services, Office for Civil Rights-HIPAA. www.hhs.gov/ocr/hipaa
- Joint Commission on Accreditation for Healthcare Organizations. Hospital National Patient Safety Goals. https://www.jointcommission.org/standards/national-patient-safety-goals/

Additional reference materials may be obtained by contacting ASET - The Neurodiagnostic Society, www.aset.org.

Scoring

The Board set the passing standard as the number of test questions it determines to be necessary for candidates to answer correctly in order to be considered at least minimally competent. This method focuses on the particular test that is being administered. Different forms of an examination are matched for difficulty and content coverage. This comprehensive approach makes use of information about the performance of similar groups in the past.

ABRET is concerned with reporting only valid scores. On rare occasions, misconduct or circumstances beyond the individual's control may render a score invalid. If doubts are raised about a score because of these or other circumstances, ABRET reserves the right to cancel any examination score if, in the sole opinion of ABRET, there is adequate reason to question its validity.

Report of Results

At the end of the examination, candidates will receive an email with a link to retrieve an **UNOFFICIAL** test result prior to leaving the testing center. If you do not receive this email, please check your spam folder, and then call 800-741-0934.

Approximately 4 – 6 weeks following examination date, candidates will receive an email when the **OFFICIAL** test result has been uploaded into their ABRET Certemy account. Candidates will be notified by PTC via email when score reports are available online. Scores on the major areas of the examination and on the total examination will be reported and available online for only 30 days. Save a copy of your score report.

Candidates may request a score verification report of their exam results by completing the <u>PTC Exam Score Verification</u> Request Form and paying a \$35 fee.

* Please do not contact the ABRET office about your results until you receive your **OFFICIAL** test results. You will not be able to reapply until the OFFICIAL test results are in.

Examination Challenges

Candidates may comment in the appropriate section at the end of the examination about any test question or questions, test procedure, and/or the test itself. Alternatively, a candidate may submit a complaint in writing to the ABRET Executive Director no later than fourteen (14) calendar days after taking the examination. All challenges and complaints will receive ABRET's full attention. Comments regarding examination validity will be reviewed by the ABRET examination committee. Examination materials shall not be available for review by candidates.

Confidentiality

- 1. ABRET will release the individual test scores ONLY to the individual candidate. CAAHEP and Pathway IV Program Directors will receive the results of their graduates included in the individual Program School Report.
- 2. From time to time, it may be necessary for the ABRET Executive Office and Board of Directors to disclose candidate information and/or scores. No material or information disclosed will be released to any unauthorized person.
- 3. Any questions concerning test results should be referred to ABRET or the Professional Testing Corporation.
- 4. ABRET provides ASET The Neurodiagnostic Society with the names, addresses, and emails of passing candidates. Candidates may opt out by contacting ABRET.

Attainment of Credential

Eligible candidates who pass the Certification Examination in Neurophysiologic Intraoperative Monitoring will be certified in neurophysiologic intraoperative monitoring for a period of five years and will be authorized to use the CNIM designation, subject to compliance with ABRET's Code of Ethics, rules, policies, and procedures, and standards of practice of ABRET. They will receive a time-limited Certificate and be eligible for recertification after five years. If not recertified, they will no longer be permitted to use the CNIM designation.

Code of Ethics & Standards of Practice

ABRET is a nonprofit credentialing board for Electroencephalographic (EEG) Technologists, Evoked Potential (EP) Technologists, Neurophysiologic Intraoperative Monitoring (CNIM) Technologists, Long Term Monitoring (CLTM) Technologists, Autonomic Professionals (CAP) and Magnetoencephalography (CMEG), NeuroAnalyst Long Term Monitoring (NA-CLTM) Technologist, and related microcredentials, and seeks to encourage, establish, and maintain the highest standards, traditions and principles of these technologies. ABRET Registered and Certified Technologists should recognize their responsibilities, not only to their patients, but also to society, to other healthcare professionals, and to themselves.

The following principles have been adopted by the Board of Directors in order to encourage personnel to aspire to the highest possible professional practice. An ABRET Registered technologist or Certified individual shall:

- 1. Do everything in his or her power to ensure that the current Guidelines of the American Clinical Neurophysiology Society are complied with in the department in which he or she works.
- 2. Preserve human dignity, respect patient's rights, and support the wellbeing of the patient under his or her care. The Registered or Certified technologist on shall avoid discrimination against individuals on the basis of race, creed, religion, sex, age, and national origin.
- 3. Appreciate the importance of thoroughness in the performance of duty, compassion with patients, and the significance of the task she or she performs.
- 4. Preserve the confidentiality of medical and personal information of a patient.
- 5. Strive to remain abreast of current technology and to study and apply scientific advances in his or her specialty. Carry out his or her professional work in a competent and objective manner.
- 6. Abide by laws related to the profession and to general public health and safety and avoid dishonest, unethical, or illegal practices.
- 7. Refuse primary responsibility for interpretation of testing or monitoring of Electroencephalograms, Evoked Potentials, or Neurophysiologic Intraoperative Monitoring for purposes of clinical diagnosis and treatment. Individuals who are licensed or otherwise authorized by practice standards to provide interpretation are excluded.
- 8. Be truthful, forthcoming, and cooperative in his or her dealings with ABRET.
- 9. Be in continuous compliance with ABRET's rules (as amended from time to time by ABRET).
- 10. Respect ABRET's intellectual property rights.
- 11. Upon suspension or withdrawal of certification, the certificant shall discontinue the use of all claims to certification that contain any reference to ABRET, and to return any certificates issued by ABRET.

Quick Tips After Achieving Your Credential

* It is important for ABRET to maintain your correct name and contact information. Please promptly notify the ABRET Executive Office of an address and/or name change by completing <u>ABRET's name and address change form.</u> Although it is your responsibility to know when your credential expires, we will remind you via email through your ABRET Certemy account when your credential needs to be renewed.

Purpose of Standards

ABRET has developed the Code of Ethics and the Grounds for Disciplinary Action to articulate standards of conduct required for eligibility of ABRET credentials, microcredentials, and continued credentialing of EEG, EP, CNIM, CLTM, CAP, CMEG, and NA-CLTM technologists. Maintenance of board certification will require adherence to these and other ABRET rules. Individuals who fail to meet these requirements may have their certification suspended or revoked.

ABRET does not guarantee the job performance of any individual.

Violations Reporting Requirements

If conduct has occurred that may be grounds for disciplinary action under the Violations to Standards of Practice and Disciplinary Process policy, then ABRET may place an application on hold while reviewing the matter. These will be reviewed on a case-by-case basis.

A criminal conviction may be grounds to deny or otherwise limit eligibility. Convictions of this nature include (but are not limited to) felonies involving rape, sexual abuse of a patient or child, and actual or threatened use of a weapon or violence. If a conviction resulted in a sentence that includes incarceration, then the individual is ineligible while in confinement (RUL-26).

- 1. **Grounds for Disciplinary Action.** ABRET may deny, suspend, revoke, or take other action regarding an application or certification if an individual is not in compliance with this Disciplinary Policy. Grounds for disciplinary action include (but are not limited to):
 - A. Ineligibility for certification, regardless of when the ineligibility is discovered;
 - B. An irregular event in connection with an ABRET examination including (but not limited to) copying answers, copying examination materials, and causing a disruption in the testing area;
 - C. Providing fraudulent or misleading information;
 - D. Unauthorized possession or misuse of ABRET credentials, examinations, and other intellectual property;
 - E. Misrepresentation of certification status;
 - F. Failure to provide requested information in a timely manner;
 - G. Failure to inform ABRET of changes or adverse actions;
 - H. Gross negligence or willful misconduct in professionalwork;
 - Accepting primary responsibility for interpretation of testing or monitoring for purposes of clinical diagnosis and treatment (Individuals who are licensed or otherwise authorized by practice standards to provide interpretation are excluded.);
 - J. Failure to maintain a current professional credential as required by the jurisdiction in which the individual practices (this may include a license, certificate, or registration);
 - K. The conviction of, plea of guilty to, or plea of no contest ("nolo contendere") to a felony or misdemeanor related to public health and safety or the profession;
 - L. Disciplinary action by a licensing board or professional organization other than ABRET; and
 - M. Other failures to maintain continuous compliance with ABRET standards, policies, and procedures.

2. Sanctions.

A. ABRET may impose one or more of the following sanctions for a violation of this Disciplinary Policy:

Violations Reporting Requirements (continued)

Sanctions (continued).

ABRET may impose one or more of the following sanctions for a violation of this Disciplinary Policy:

- Denial or suspension of eligibility;
- Denial of certification;
- Revocation of certification;
- Non-renewal of certification;
- Suspension of certification;

- Reprimand;
- Probation;
- Notification of other legitimately interested parties;
- Or other corrective action (RUL-8).

Candidates or certificants may appeal the decision of the Ethics and Disciplinary Committee by submitting a written appeals statement within 30 days, according to ABRET's policies.

Each candidate must affirm that the information provided in the Application is true and correct to the best of their knowledge. Each candidate further agrees to hold ABRET and its sponsoring organizations blameless from any claim for damages as a result of any action it may take in connection with this Application, the credentialing examination, or the results there of.