

Position StatementAmerican Association of Neuromuscular & Electrodiagnostic Medicine

Role of Advanced Practice Providers in Neuromuscular Medicine

Introduction

Advanced practice providers (APPs) are among the fastest growing healthcare professions in the United States. As a result, the involvement of APPs within the American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM) has also grown in recent years. The AANEM recognizes the growing and indispensable role of APPs in the field of neuromuscular (NM) medicine through team-based care models including but not limited to collaboration with neurologists and/or physical medicine and rehabilitation (PM&R) physicians. As the landscape of healthcare evolves and the national physician shortage grows, APPs play a crucial and expanding role in patient care, improving access, and addressing the growing demand for specialized services^{1,7,8}. This position statement underscores the critical need and support for use of APPs in NM medicine while affirming the leadership and expertise of supervising and/or collaborating physicians (herein after collaborating physician) in patient care.

Background on APP Training and Scope of Practice

Nurse practitioners (NPs, which are APRNs) and physician assistants (PAs) are licensed clinicians able to evaluate, diagnose, and treat patients in various medical settings. However, it is crucial to highlight that APPs do not receive specialized training in NM medicine during their standard education. Therefore, extensive on-the-job training working with neurologists and PM&R physicians and continuous education in NM medicine are essential for APPs to competently fulfill their roles.

- NPs are trained under the nursing model and graduates earn a master's degree (MSN) or a • doctorate degree (DNP) from an accredited program. Once board certified and licensed, NPs can practice in any specialty within the populations specified by their program concentration. Currently, licensure is state based, with some variability between the qualifications for licensure and re-licensure among states. Biannual continuing education (CE/CEU) is required for NP license renewal. The development of collaborative agreements with physicians is defined by state law and facilitated by the state board of nursing, depending on the state.
- PAs earn a master's degree from accredited programs based on the medical model of training. • Physician assistants can work in any specialty after passing a board certification exam and obtaining licensure. A collaborating physician is necessary for all PA state licenses. To maintain national certification and licensing, PAs must take a recertification exam as well as maintain biannual CME requirements.

Scope of practice refers to the procedures, actions, and processes that a healthcare practitioner is permitted to undertake in alignment with the terms of their professional license. PA practice laws are governed by state law. Similarly, state-based Nurse Practice Acts and regulations define the practice environment (i.e., Full, Reduced or Restricted Practice) for NPs within a given jurisdiction. When applicable, protocols for collaborative agreements can be found through the respective state board of nursing. Furthermore, the board of nursing in some states provides a pathway for APRNs to receive registration / addition of autonomous practice authorization to their license once stringent requirements have been met and an application has been approved. More information can be found on professional organization websites for PAs and for NPs/APRNs, as well as through each state's board of nursing.



Reflective of the above training, practice and licensure environment, supervision of both PAs and NPs is heterogenous. Institutional and practice-specific guidelines can further specify NP and PA roles. Specific supervision and collaboration agreements may also involve individual decisions between the APP and their collaborating physician.

Team-based Model of Care

There currently exists a supply and demand deficit between physicians and patients seeking care in the United States. This gap critically stifles access to care, especially in rural communities, and is only projected to grow in the coming years^{1,2,6}. APPs can work collaboratively with physicians using a teambased care model to deliver comprehensive, high-quality NM care to a high volume of patients. This not only allows for increased access to NM care but also improves the quality of care being delivered thus maximizing patient outcomes and satisfaction^{7,8}.

There is a significant difference in the years of training between residency / fellowship-trained physicians entering practice and newly graduated APPs, which leads to an initial knowledge gap for an APP entering their chosen field. While this is typically addressed through both initial onboarding and ongoing training between APP and physician colleagues, it is important for a collaborating physician to oversee APPdelivered care. In the case of NPs, there are states, in addition to the Veterans Health Administration, that do not require a collaborating physician for practice. However, given the comprehensive nature of NM medicine and the lack of subspecialty exposure during didactic and clinical training, we strongly advise that all APPs working in NM medicine work with a collaborating physician.

Potential roles for APPs within a NM practice include:

- Patient Evaluation taking a history, performing a physical exam, or ordering and interpreting diagnostic tests for new and/or existing patients.
- Treatment Planning and Management working in collaboration with a physician to design • and implement the treatment plan and assess progress.
- Care Coordination •
- Administrative-tasks including paperwork, prior authorizations, appeals. •
- Triage and Communication address incoming patient-care related phone calls and messages. •
- Patient Education
- Telehealth and Remote Monitoring
- **Research and Quality Improvement Initiatives** •
- Community Outreach and Advocacy ٠
- Continuing Education and Professional Development

Dynamic and evolving collaboration within an APP-physician team also allows for job satisfaction, retention, and reduced rates of burnout for both APPs and physicians^{3,4,9}.

APPs and Electrodiagnostic (EDX) testing

While the AANEM recognizes and supports the clinical practice of APPs, APPs are not trained or licensed to perform EDX testing. In keeping with AANEM position statements and CMS regulations for EDX testing, APPs should not perform or interpret electromyography (EMG) or interpret nerve conduction studies (NCSs). APPs may be trained to perform NCS under the direct supervision of a qualified EDX physician. However, EDX testing remains an invaluable tool in NM medicine that APPs



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should use in their clinical practice. APPs may serve an additive role by explaining the results written by the EDX physician within the clinical context and communicating results to patients and other members of the healthcare team.

Education and Training

On-the-job training is necessary for APPs to fulfill the expectations of a desired role within a practice^{5,8}. There are currently no formal guidelines for the training and integration of APPs into NM practice. Some examples of onboarding activities to help APPs working in a NM clinic include: a shared visit clinic model, reading and discussing didactic material, shadowing a physician in the EMG lab, and training in other specialties provided within the clinic/department. It is important for physicians, APPs, and administration to agree on expectations and the vision for the APP role in their designated setting based on scope of practice, level of training, and experience of the APP. Just as a clinical fellowship refines a physician's training, extensive APP training is necessary to understand the nuance of subspecialty care as well as the practice style of their physician colleagues. Ongoing APP education is essential for fostering a positive working relationship and the delivery of high-quality patient care. Physicians should be respectful of the training of an APP and allow them to practice to the fullest extent of their professional license while maintaining a supervisory role within the APP-physician team and providing the best care for the patient.

APPs and the AANEM

The AANEM welcomes APP members and aims to support APPs within the field by:

- Providing APP membership to the AANEM.
- Supporting the efforts of the APP committee within the AANEM.
- Providing continuing medical (CME) / continuing education (CE/CEU) targeted toward APPs.
- Facilitating networking and career development opportunities for APPs at the AANEM Annual Meeting and other organization events.
- Supplying practice management and educational resources for physicians interested in • collaborating with and training APPs.

Conclusion

In conclusion, AANEM affirms its support for the integration and recognition of APPs in NM medicine. By recognizing the distinctive contributions of each team member and emphasizing the leadership of physicians in caring for patients with NM diseases, we aim to elevate patient care, enhance the efficiency of healthcare delivery, promote collaboration, and advance the field in accordance with the highest standards of medical practice.



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References

- 1. Cook CL, Schwarz HB. Advanced Practice Clinicians-Neurology's Underused Resource. JAMA Neurol. 2021;78(8):903-904. doi:10.1001/jamaneurol.2021.1416
- 2. Dall TM, Storm MV, Chakrabarti R, et al. Supply and demand analysis of the current and future US neurology workforce. Neurology. 2013;81(5):470-478. doi:10.1212/WNL.0b013e318294b1cf
- 3. De Milt, D.G., Fitzpatrick, J.J. and McNulty, S.R. (2011), Nurse practitioners' job satisfaction and intent to leave current positions, the nursing profession, and the nurse practitioner role as a direct care provider. Journal of the American Academy of Nurse Practitioners, 23: 42-50. https://doi.org/10.1111/j.1745-7599.2010.00570.x
- 4. Essary, A. C., K. S. Bernard, B. Coplan, R. Dehn, J. G. Forister, N. E. Smith, and V. L. Valentin. 2018. Burnout and job and career satisfaction in the physician assistant profession. A review of the literature. NAM Perspectives. Discussion Paper. National Academy of Medicine, Washington, DC. https://doi.org/10.31478/201812
- 5. Gheihman G, Vgontzas A, Paulson J, et al. Integrating Advanced Practice Providers in an Academic Department of Neurology. Neurol Clin Pract. 2021;11(6):462-471. doi:10.1212/CPJ.0000000000001077
- 6. National Center for Health Workforce Analysis. HRSA Health Workforce Physician Workforce: Projections, 2020-2035. Published online 2022. Accessed May 2024. https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/Physicians-Projections-Factsheet.pdf.
- 7. Ross SC. An option for improving access to outpatient general neurology. Neurol Clin Pract. 2014 Oct;4(5):435-440. doi: 10.1212/CPJ.0000000000000075. PMID: 29443242; PMCID: PMC5765689.
- 8. Ross SC, Jakkampudi V, Jens W, Barbush K, Sathian K, Huang X. Improving Access to Tertiary Movement Disorders Subspecialty Care: A Team Model Born From the COVID-19 Crisis. Neurol Clin Pract. 2022;12(2):164-168. doi:10.1212/CPJ.00000000001154
- 9. Sigsbee B, Bernat JL. Physician burnout: A neurologic crisis. Neurology. 2014;83(24):2302-2306. doi:10.1212/WNL.000000000001077

Document History

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