

Neurology Advanced Practice Providers

A position paper of the American Academy of Neurology

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Summary

There are many factors driving health care reform including unsustainable costs, poor outcomes, an aging populace, and physician shortages. These issues are particularly relevant to neurology. New reimbursement models are based on value and facilitated by the use of multidisciplinary teams. Integration of advanced practice providers (APPs) into neurology practice offers many advantages with new models of care. Conversely, there are many and varied challenges financially and logistically with these practice models. The American Academy of Neurology has formed a Work Group to address the needs of both neurologists and neurologic APPs and monitor the effect of APPs on quality and cost of neurologic care.

Introduction

It is apparent to providers, patients, and policymakers that healthcare in the United States faces major challenges. Currently health care consumes 17.7% of our GDP resulting in the highest per capita cost of healthcare in the world.¹ Despite this, our outcomes are poorer than most industrialized countries (all of which have lower costs).² The allocation of healthcare resources varies between regions and within states, and is a particular issue for neurology.

Discussion

There are currently shortages of neurologists in 40 states. Even those states with adequate supply may have areas of limited access to neurologic care, most often in rural locations. A study in the journal *Neurology* found that the demand for neurologists will grow faster than the supply in the next decade. In 2012, there was an 11% shortage of neurologists in the United States. By 2025, that number will grow to a 16% shortage.³

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This is compounded by the fact that neurologists are aging: the average age of neurologists in the United States is 52 years old. The national supply of neurologists simply cannot keep up with the demand. This statistic is concerning because the US population is aging, resulting in a greater burden of neurologic disease. Because the current financial situation is not sustainable, healthcare reform is inevitable. On the other hand, efforts to improve quality have included integration of electronic medical records into most practices, higher standards for meaningful use of EMRs and incorporation of quality measures. These directly affect reimbursement but have adversely affected efficiency. Value-based payment modifiers will further determine reimbursement based on outcomes and quality measures. It seems clear that a team-based approach to patient care is necessary to achieve desired high-quality outcomes. This has prompted alignment of physician groups, hospitals, and chronic care facilities into health care systems in order to improve outcomes at lower costs. This also necessitates all providers operate at the fullest extent of their license and capabilities. Given the current shortage of neurologists, the use of advanced practice providers (APPs) - including (although not limited to) nurse practitioners or advanced practice nurses (NPs or APNs), physician assistants (PAs), and clinical nurse specialists (CNSs) - will be crucial to improving access and continuity of care.

While the role of APPs in practice cannot replace the need for neurologists, it is likely to alter neurologists' role in patient care: neurologists will remain essential in the process of diagnostic evaluation and development of a care plan through consultations. APPs may assume the leadership of straightforward cases, allowing more time for the physician to dedicate to the treatment of complex or difficult case.⁴ The Institute of Medicine⁵, the American College of Physicians⁶, and the American Medical Association⁷ have all endorsed the need for physician-led multidisciplinary teams in new healthcare delivery models.

Recommendations For Best Practices

The ultimate goal of integration of non-physician care providers is to add value by both improving access and enhancing quality of care for patients with neurologic disease. Advanced practice providers can conduct evaluations, prescribe medications, order and interpret testing, and perform some procedures independent of direct physician supervision. They can provide many aspects of care that neurologists currently perform, such as education of patients and families, counseling, resource management and follow-up care.⁸ Therefore, APPs have the potential to improve outcomes at a lower cost to patients and to the system by improving outpatient access, potentially reducing the need for emergency care. In addition, APPs may be able to assist in patient education which may also decrease the overutilization of the medical system. Incorporating APPs into neurologic practice to assume such responsibilities may alleviate some of the stress and burden associated with the care of chronically ill neurology patients, thereby reducing the recently reported high "burn out" rate of neurologists.⁹

There is no definitive way to use advanced practice providers in multidisciplinary teams. The model varies depending upon the size and "specialty" focus of the neurology practice, and is further determined by individual state laws. It is crucial for the physician(s) to have a desire to participate in a collaborative practice. To create a cohesive group, a defined mission with clear vision and values must be

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stated. The team should acknowledge each provider's strengths and limitations. It is necessary to recognize the accepted scope(s) of practice and allow each member of the team to practice to the full extent of his/her professional license, training, and abilities.

Neurology is a highly nuanced field of medicine. Advances in medicine occur at a rapid pace.¹⁰ Providers are required to refine their skills continuously. It is with this understanding that the AAN recommends that within neurology-specific practices, the clinical leader of a multidisciplinary team be a Board-certified neurologist. Operationally, high-functioning teams are generally led by consensus, allowing all team members to maximize their skill set.

While integrating APPs offers many advantages, there are barriers, including:

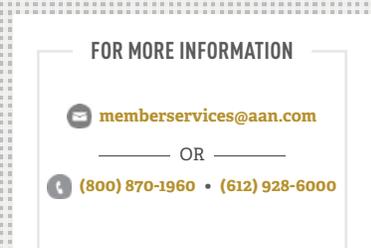
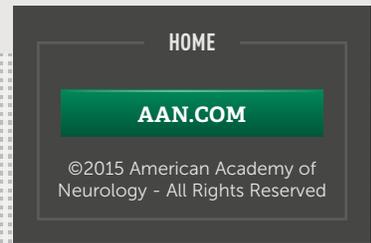
- The cost of onboarding APPs to neurologic practice before any financial relief is realized, since many APPs come out of formal training with little or no neurology experience
- The retention of well-trained neurology APPs; it is hoped that the AAN's current efforts can improve retention of APPs in neurologic practice and provide educational resources in neurology to ensure a stable and skilled workforce for our members
- The challenge of transition to team-based care in neurologic practice; this challenge exists for every member of the team who may need to redefine their roles in a multidisciplinary care structure. This is a particular concern in academic centers due to the potential for diluting the clinical experience for residents and fellows (further complicated by duty hour restrictions). These concerns will need to be addressed both nationally and institutionally.

Because the AAN recognizes that APPs are an integral part of multidisciplinary neurology teams, the AAN, through the efforts of the APP work group, will develop resources to educate its members on the following:

- Creating business models (in various settings) that support a multidisciplinary approach
- Billing/coding for multidisciplinary teams
- Integrating additional clinicians/providers into neurologic practice
- Establishing the link between employment of an APP and improved value and outcomes, by encouraging study of the value proposition
- Linking the integration of APPs into neurology practice with improved lifestyle and reduced burnout

The AAN needs to gain a better understanding of what APPs desire from the AAN, and to fill gaps in resources that APPs need to be successful in neurologic practice. In particular, the AAN needs to:

- Accurately identify what membership benefits are valuable to APPs
- Accurately identify what educational gaps can be filled by our programs
- Address and advertise the recertification and maintenance of certification requirements for APPs that can be met by AAN offerings
- Incorporate APPs into the committee structure of the AAN to allow for their perspectives to be effectively communicated and for the AAN to



better understand new models of value based care

- Develop a Fellow of the AAN status, similar in requirement of the Fellow statuses for physicians and research scientists, for APPs
- Develop an APP consortium within the AAN to foster growth and leadership for this section of our membership.

To date, the AAN has created a new member category specifically for APPs with two affordable levels. In addition, a course oriented specifically for the professional needs of APPs was offered at the 2015 Annual Meeting, as well as APP-specific networking and professional events.

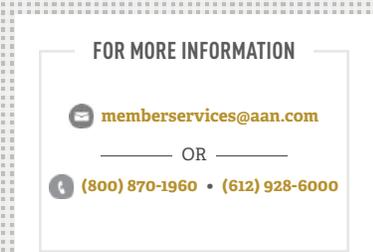
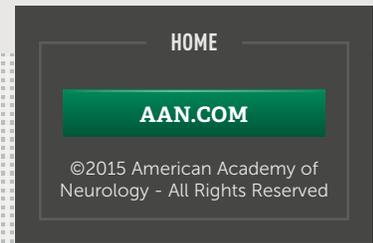
Integration of neurology advanced practice providers into AAN membership and initiatives is a major priority for the organization, prompting the formation of a Work Group to pursue these issues further. The purpose of this AAN Work Group is:

- To implement recommendations from APPs to enhance professional and educational offerings from AAN to appeal to a wide range of neurologic providers
- To identify the pitfalls to avoid and best practices to follow when joining, establishing, or adding to a multidisciplinary team
- To advocate for study of the effect of APP integration on the quality and cost of neurologic care

In addition to Academy staff, the Work Group is composed of neurologists, a practice administrator, nurse practitioners or advanced practice nurses, physician assistants, and clinical nurse specialists, all representing varied geographic locations and clinical roles. Our efforts are informed by a survey administered in 2014 by AAN to neurologists, practice administrators and APPs. It is anticipated that the evolution of multidisciplinary care teams may eventually extend to other providers: physical and occupational therapy; speech therapy; social work; pharmacy; nutritionists; neuropsychologists; etc. in the future, providing this work group with ongoing responsibilities regarding integration into the AAN.

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Author Contributions

Heidi Schwarz: Drafting/revising manuscript, acquisition of relevant literature/data, interpretation of relevant literature/data, critical manuscript revision

Joseph Fritz: Drafting/revising manuscript, acquisition of relevant literature/data, interpretation of relevant literature/data, critical manuscript revision

Raghav Govindarajan: Critical manuscript review

Rebecca Penfold Murray: Drafting/revising manuscript, acquisition of relevant literature/data, interpretation of relevant literature/data; critical manuscript revision

Kathryn B. Boyle: Interpretation of relevant literature/data; critical manuscript revision

Thomas S.D. Getchius: Drafting/revising manuscript, interpretation of relevant literature/data, critical manuscript revision

Miriam Freimer: Drafting/revising manuscript, acquisition of relevant literature/data, interpretation of relevant literature/data, critical manuscript revision

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J. V. Fritz has received funding for travel and speaker honoraria from AAN; is an employee of Dent Neurologic Institute, a medical practice that uses APPs; serves as a consultant for Allergan and Blue Cross of Western New York; and serves on speakers' bureaus for AAN and American Society of Neuroimaging.

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