HOD ACTION: Recommendations in Council on Medical Education Report 5 be adopted as amended with a change in title.

REPORT 5 OF THE COUNCIL ON MEDICAL EDUCATION (A-22)
Education, Training, and Credentialing of Non-Physician Health Care Professionals and Their Impact on Physician Education and Training (Resolution 305-J-21, Resolve 8)
(Reference Committee C)

EXECUTIVE SUMMARY

This report is written in response to two resolves from Resolution 305-J-21, "Non-Physician Postgraduate Medical Training," which was authored by the American Medical Association (AMA) Resident and Fellow Section and submitted to the Special Meeting of the House of Delegates in June 2021. One resolve, now AMA Policy D-275.949, asked:

> That our AMA study and report back to the House of Delegates on curriculum, accreditation requirements, accrediting bodies, and supervising boards for undergraduate, graduate, and postgraduate clinical training programs for non-physicians and the impact on undergraduate and graduate medical education.

A second resolve was referred which asked:

> That our AMA oppose non-physician healthcare providers from holding a seat on the board of an organization that regulates and/or provides oversight of physician undergraduate and graduate medical education, accreditation, certification, and credentialing when these types of non-physician healthcare providers either possess or seek to possess the ability to practice without physician supervision as it represents a conflict of interest.

The accrediting bodies of undergraduate and graduate medical education address interprofessional education, collaboration, and supervision in their accreditation requirements. The differences in education and training between physicians and non-physicians, particularly nurse practitioners and physician assistants, is reviewed in greater detail in this report as well as support for and concerns regarding such interprofessional efforts.

Some boards of organizations that regulate and/or provide oversight of physicians (e.g., undergraduate and graduate medical education, accreditation, certification, and credentialing) have seats for non-physician health care providers. This may pose a conflict of interest for those non-physician health care providers who seek to practice independently of physicians. However, there can be value in having a non-physician representative on a board in order to provide additional perspective and ensure the best interests of patients.

HOD ACTION: Recommendations in Council on Medical Education Report 5 be adopted as amended with a change in title.

REPORT OF THE COUNCIL ON MEDICAL EDUCATION

CME Report 5-A-22

Subject:	Education, Training, and Credentialing of Non-Physician Health Care Professionals and Their Impact on Physician Education and Training (Resolution 305-J-21, Resolve 8)
Presented by:	Niranjan V. Rao, MD, Chair
Referred to:	Reference Committee C

INTRODUCTION

Resolution 305-J-21, "Non-Physician Postgraduate Medical Training" was authored by the American Medical Association (AMA) Resident and Fellow Section and submitted to the Special Meeting of the House of Delegates in June 2021. Its third resolved statement was adopted as amended, resulting in AMA Policy D-275.949, which asks that our AMA "study and report back to the House of Delegates on curriculum, accreditation requirements, accrediting bodies, and supervising boards for undergraduate, graduate, and postgraduate clinical training programs for non-physicians and the impact on undergraduate and graduate medical education."

In addition, the following resolve of Resolution 305-J-21 was referred:

> That our AMA oppose non-physician healthcare providers from holding a seat on the board of an organization that regulates and/or provides oversight of physician undergraduate and graduate medical education, accreditation, certification, and credentialing when these types of non-physician healthcare providers either possess or seek to possess the ability to practice without physician supervision as it represents a conflict of interest.

This report is written in response to the adopted policy and the referral. To clarify, this report is not about non-physician scope of practice, nor funding of physician vs. non-physician clinical training programs. The Council on Medical Education acknowledges the concerns articulated by the authors of these resolutions. This report seeks to investigate and discuss the issues raised in the resolutions in order to advance these learning environments.

BACKGROUND

The accrediting bodies of undergraduate and graduate medical education address interprofessional collaborations and supervision in their accreditation requirements.

Allopathic and osteopathic requirements

In evaluating non-physician educational programs and requirements, it is imperative to understand the rigors of medical training inclusive of the requirements set forth by the Liaison Committee on Medical Education (LCME) and Commission on Osteopathic College Accreditation (COCA) for undergraduate medical education as well as the Accreditation Council for Graduate Medical Education (ACGME) for graduate medical education.

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Undergraduate medical education

To achieve and maintain accreditation, a medical education program leading to the MD degree in the U.S. must demonstrate appropriate performance in the standards and elements of the LCME. According to its updated Functions and Structure of a Medical School standards released in 2021, Standard 9: Teaching, Supervision, Assessment, and Student and Patient Safety states, "A medical school ensures that its medical education program includes a comprehensive, fair, and uniform system of formative and summative medical student assessment and protects medical students' and patients' safety by ensuring that all persons who teach, supervise, and/or assess medical students are adequately prepared for those responsibilities."[1] Likewise, Standard 5: Learning Environments of the American Osteopathic Association's COCA states, "A College of Osteopathic Medicine (COM) must ensure that its educational program occurs in professional, respectful, nondiscriminatory, and intellectually stimulating academic and clinical environments. The school also promotes students' attainment of the osteopathic core competencies required of future osteopathic physicians." Further, COCA Standard 7 states, "The faculty members at a COM must be qualified through their education, training, experience, and continuing professional development and provide the leadership and support necessary to attain the institution's educational, research, and service goals. A COM must ensure that its medical education program includes a comprehensive, fair, and uniform system of formative and summative medical student assessment and protects medical students' and patients' safety by ensuring that all persons who teach, supervise, and/or assess medical students are adequately prepared for those responsibilities."[2]

Graduate medical education

The ACGME offers a single GME accreditation system that allows graduates of allopathic and osteopathic medical schools to complete their residency and/or fellowship education in ACGME-accredited programs and demonstrate achievement of common milestones and competencies. The ACGME Common Program Requirements are a basic set of standards in training and preparing resident and fellow physicians. These requirements address non-physicians' roles in resident education, both from the perspective of teaching faculty as well as the impact of non-physician learners on resident education:

- I.E. The presence of other learners and other care providers, including, but not limited to, residents from other programs, subspecialty fellows, and advanced practice providers, must enrich the appointed residents' education. (Core)
- I.E.1. The program must report circumstances when the presence of other learners has interfered with the residents' education to the DIO and Graduate Medical Education Committee (GMEC). (Core)
- II.A.4. Program Director Responsibilities: The program director must have responsibility, authority, and accountability for: administration and operations; teaching and scholarly activity; resident recruitment and selection, evaluation, and promotion of residents, and disciplinary action; supervision of residents; and resident education in the context of patient care.
    a). (3) Background and intent: The program director may establish a leadership team to assist in the accomplishment of program goals. Residency programs can be highly complex. In a complex organization, the leader typically has the ability to delegate authority to others yet remains accountable. The leadership team may include physician and non-physician personnel with varying levels of education, training, and experience.
- II.B.3.c) Any non-physician faculty members who participate in residency program education must be approved by the program director. (Core) Background and Intent: The

> provision of optimal and safe patient care requires a team approach. The education of residents by non-physician educators enables the resident to better manage patient care and provides valuable advancement of the residents' knowledge. Furthermore, other individuals contribute to the education of the resident in the basic science of the specialty or in research methodology. If the program director determines that the contribution of a non-physician individual is significant to the education of the residents, the program director may designate the individual as a program faculty member or a program core faculty member.[3]

Non-physician requirements

The AMA Advocacy Resource Center (ARC) produced a Scope of Practice Data Series[4,5] to serve as a resource to state medical associations, national specialty societies, and state lawmakers on the difference in the education, training, and licensure requirements of non-physicians as compared to physicians. Two of the informational modules address nurse practitioners (NPs) and physician assistants (PAs).

The NP must hold a valid registered nurse (RN) license, have completed a graduate-level degree, and pass a state licensure examination. The educational pathways leading to a diploma and becoming a RN include an associate degree (ADN), a baccalaureate degree (BSN), or a master's degree in nursing (MSN). Moreover, some nurses who graduate with a diploma or associate degree continue to enroll in baccalaureate programs, and increasingly, some nurses with baccalaureate degrees in other fields begin their nursing education in "direct entry" master's degree programs.[6]

The Scope of Practice Data Series on the NP[5] explains in detail the journey of a physician, using a family physician as an example, through medical school, licensure exams (the United States Medical Licensing Examination, or USMLE, and Comprehensive Osteopathic Medical Licensing Examination of the United States, or COMLEX-USA), residency training, and board certification. Comparatively, it walks though the NP journey, starting with the licensure as a RN per the curriculum standards for nursing schools of the American Association of Colleges of Nursing (AACN) as well as the RN licensure exam. It explains the three types of NP programs: a masters of nursing practice (MSN), practice-focused doctor of nursing practice (DNP), or doctoral (DNP) degree program, with most NPs completing a MSN. Both MSN and DNP programs are accredited by the Commission on Collegiate Nursing Education (CCNE) or the Accreditation Commission for Education in Nursing (ACEN). The standards for NP programs, based on guidelines from the AACN ("MSN Essentials") and National Task Force on Quality Nurse Practitioner Education, Criteria for Evaluation of Nurse Practitioner Programs ("NTF Criteria"), outline the core content, skills, and knowledge a graduate of a NP program should possess. While some NP programs offer postgraduate training after attainment of the degree, similar to medical residencies, completion of a postgraduate clinical practicum is not required for licensure or certification. Further, the data series reviews NP licensure and certification and maintenance of certification. Appendix A contains an infographic from the ARC comparing the education and training of physicians and NPs.

PAs are also members of the interprofessional team under the guidance and supervision of a physician. PA education must be completed through an accredited PA program. Upon completion, students must pass the PA National Certifying Exam (PANCE) and obtain licensure in the state in which they wish to practice. Some PA schools may require completion of science courses and hands-on experience prior to admission. While accreditation standards require PA programs to provide a generalist education, the length of the program, type of degree, and specific course requirements vary by institution and state.[7]

The Scope of Practice Data Series on the PA[4] describes the same physician journey as compared to the PA. It reviews the Phase I (classroom/didactic phase) and Phase II (clinical phase) education standards of a PA set forth by the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA), as well as the optional postgraduate clinical practicum, licensure, certification, optional specialty certification(s), and maintenance of certification. The ARC-PA standards, which are used for the development, evaluation, and self-analysis of PA programs, maintain that PAs are "academically and clinically prepared to practice medicine on collaborative medical teams," given that "the collaborative medical team is fundamental to the PA profession and enhances the delivery of high-quality health care."[8] See Appendix B, which contains a table from the ARC comparing the education and training of physicians and PAs. The ARC can provide more information on this series as requested.

Non-physician board membership requirements

Some boards of organizations that regulate and/or provide oversight of physicians (e.g., undergraduate and graduate medical education, accreditation, certification, and credentialing) have seats for non-physician providers. Whether or not these types of non-physician providers possess or seek to possess the ability to practice without physician supervision is often not addressed in the description of the seat. Further, there is little information in the literature about boards promoting designated seats specifically to non-physician providers, other than that of a "public member" seat.

For the AMA Board of Trustees, the non-physician/public member seat is defined in its Constitution and Bylaws B-3.2.6, "Public Trustee. The public trustee shall be an individual who does not possess the United States degree of doctor of medicine (MD) or doctor of osteopathic medicine (DO), or a recognized international equivalent, and who is not a medical student."

The Federation of State Medical Boards (FSMB) provides guidance for state medical boards on the makeup of their board seats. They recommend that at least 25 percent be public members and that such members "reside in the state and be persons of recognized ability and integrity; not be licensed physicians, providers of health care, or retired physicians or health care providers; have no past or current substantial personal or financial interests in the practice of medicine or with any organization regulated by the board (except as a patient or caregiver of a patient); and have no immediate familial relationships with any licensees or any organization regulated by the Board, unless otherwise required by law. Public members should represent a wide range of careers."[9] Often, such seats are determined by a state's governor and/or legislature. While all state medical boards are linked by the FSMB, it is not as apparent how non-physician state boards are connected to each other.

Regarding physician certification and accreditation, organizations such as the American Board of Medical Specialties (ABMS) and ACGME have not disclosed the criteria for the composition of their own boards of directors, which include non-physicians, nor is it apparent if ABMS offers recommendations on the structure and function of the boards of directors for their member boards.

DISCUSSION

Interprofessional education and collaboration: support and concerns

Interprofessional education (IPE), when students from two or more health professions learn together during all or part of their training, and collaborative practices are intended to optimize patient outcome. The AMA recognizes their value as stated in Policy D-295.934, "1. Our AMA: (A) recognizes that interprofessional education and partnerships are a priority of the American

medical education system; 2. Our AMA supports the concept that medical education should prepare students for practice in physician-led interprofessional teams. 3. Our AMA will encourage health care organizations that engage in a collaborative care model to provide access to an appropriate mix of role models and learners."

Accrediting bodies support interprofessional education and collaborative practice. LCME Standard 7.9 addresses interprofessional collaborative skills, stating, "The faculty of a medical school ensure that the core curriculum of the medical education program prepares medical students to function collaboratively on health care teams that include health professionals from other disciplines as they provide coordinated services to patients. These curricular experiences include practitioners and/or students from the other health professions." The ACGME's Common Program Requirement VI.E.2. states, "Teamwork: Residents must care for patients in an environment that maximizes communication. This must include the opportunity to work as a member of effective interprofessional teams that are appropriate to the delivery of care in the specialty and larger health system. (Core)"[1] Similarly, COCA Element 6.8: Interprofessional Education for Collaborative Practice (CORE) states, "In each year of the curriculum, a COM must ensure that the core curriculum prepares osteopathic medical students to function collaboratively on health care teams, adhering to the IPEC core competencies, by providing learning experiences in academic and/or clinical environments that permit interaction with students enrolled in other health professions degree programs or other health professionals."[2]

Despite the value of IPE, clinical learning environments often include learners from multiple professions and from various training programs without coordinated accountability for management of the clinical setting. Physician training can be adversely affected if the presence of multiple learners results in decreased opportunities for patient or procedural exposures.

Further, there is concern that enrolling advanced practice providers into "resident" positions can lead to reduction in the number of MD/DO graduate positions available. Differences in training and qualifications need to be carefully considered. Some medical specialty groups have spoken out about the concern of advanced practice providers in "resident" positions. The American Academy of Emergency Medicine released a statement, updated in September 2020, on Emergency Medicine Training Programs for Non-Physician Practitioners (NPP) which states that such postgraduate programs:

- Must be clear to the public by prohibiting the use of the following terms: doctor, intern, internship, resident, residency, fellow, and fellowship. The recommended term is postgraduate training program.
- Must be structured, intended, and advertised as to prepare its participants to practice only as members of a physician-led team.
- Must not interfere with the educational opportunities of emergency medicine residents and medical students. Potential detriment to resident and student education must be monitored in a comprehensive and meaningful way throughout the existence of the NPP program.
- Must be initiated with the consultation and approval of the emergency medicine residents and physician faculty.[10]

Regarding accreditation of nursing postgraduate clinical practicums, the ANCC's Practice Transition Accreditation Program® (PTAP) is recognized by the U.S. Department of Labor as a Standards Recognition Entity for Industry-Recognized Apprenticeship Programs (IRAP). It sets the global standard for postgraduate clinical practicums that prepare RNs and advanced practice RNs to transition into new practice settings. In January 2022, the National Nurse Practitioner Residency & Fellowship Training Consortium announced its federal recognition as an accrediting agency by the U.S. Department of Education. These two organizations can play a key role in fostering

interprofessional team learning environments. Should these practicums interfere with GME, the GMEC office may not have the authority necessary to make an impact, resulting in a negative consequence to the GME training program. Appropriate institutional leaders should address these concerns and foster action.

NP and PA "residents" can bill for patient care. This raises concern that systems favor these advanced practice provider practicums as a mechanism to deliver care at a reduced cost compared to staffing clinical services by resident physicians. Substituting providers with differing qualifications may harm the educational mission. Disparities in pay are also a concern as resident pay is capped due to the availability of federal support for GME funding. The same is not true for advanced practice providers in postgraduate clinical practicums, which may lead to disparity in salaries for trainees with varying entering levels of education. AMA Policy H-310.912, Resident and Fellows Bill of Rights, states, "10. Our AMA believes that healthcare trainee salary, benefits, and overall compensation should, at minimum, reflect length of pre-training education, hours worked, and level of independence and complexity of care allowed by an individual's training program (for example when comparing physicians in training and midlevel providers at equal postgraduate training levels)." The use of the term "resident" to describe these postgraduate clinical practicums is another concern; this terminology is being addressed in a concurrent Council on Medical Education report, "Protection of Terms Describing Physician Education and Practice."

Interprofessional board members: support and concern

Testimony on the eighth resolve of Resolution 305 at the June 2021 Special Meeting expressed concern for non-physician health care providers holding a seat on a board with oversight of physicians, noting that this may pose a conflict of interest for those non-physician providers who seek to practice independently of physicians. On the other hand, Reference Committee C, in its report to the HOD, noted that there can be value in having a non-physician representative on a board in order to provide additional perspective and ensure the best interests of patients. Such mixed representation is already in practice on some boards (e.g., institutional review boards, hospital medical quality boards, medical specialty boards).

One example of such mixed representation is the California Medical Board, which is composed of 15 board members, 8 physician members, and 7 public members. The governor appoints 13 members, and two are appointed by the legislature.[11] A 2021 senate bill proposed adding two members from the general public to the board, giving non-physicians a slim majority; however, the author of the bill removed the proposed change before it was voted upon.[12]

In 2017, the Iowa Board of Medicine seated the first non-physician to chair the board that has overseen the licensure and regulation of the state's physicians for 130 years. At that time, only four of the nation's 70 state and territory medical boards had public members serving as chairs. Historically, Iowa governors were required to appoint members of licensing boards from lists of nominees submitted by their state trade and professional groups. However, state legislation was changed to alleviate suspicions that some licensing boards functioned more to protect members of the profession than to protect the public.[13]
Aside from the public member seat, consideration should be given to the risks as well as benefits of boards that promote seats specific to a non-physician provider as a designated seat. Some may say that non-physician health care providers can pose a conflict of interest on a board that oversees physicians, particularly for those who seek to practice independently of physicians. Others may say that not having non-physician providers on a physician oversight board may also pose a conflict, as an all-physician board may be inherently biased in its self-governance. One potential benefit of a

non-physician majority is that it could boost public confidence that the board is focused on protecting patients.

Understanding the composition of the boards that monitor non-physicians is also important. The National Council of State Boards of Nursing (NCSBN) is a not-for-profit organization whose U.S. members include the nursing regulatory bodies in the 50 states, the District of Columbia and four U.S. territories. The leadership of NCSBN consists of a board of directors and a delegate assembly. This board of directors comprises nurses as well as other professionals. The National Commission of Certification of Physician Assistants (NCCPA) is the only certifying organization for PAs in the United States. The NCCPA Board of Directors is made up of PAs as well as other professionals, and currently includes four physicians.

RELEVANT AMA POLICY

AMA policy addresses interprofessional education among health care professions students; educational preparation of physicians, including the meaning of fellowship training, as compared with the preparation of other health professionals; and the difference in education of physicians and non-physician health care workers. These and other related policies are shown in Appendix C.

Regarding non-physician seats on physician oversight boards as raised in the eighth resolve of Resolution 305 and the issue of conflict of interest (COI), the AMA does not have specific policy on COI but does have policy on COI in other situations. For example, H-235.970, "Conflict of Interest Issues and Medical Staff Leaders," states that:

> Our AMA encourages medical staffs to adopt and incorporate into their bylaws medical staff conflict of interest policies that reflect the following principles:
>
> 1. Disclosure of potential conflicts. Candidates for election or appointment to medical staff leadership positions should disclose in writing to the medical staff, prior to the date of election or appointment, any personal, professional or financial affiliations or relationships of which they are reasonably aware, including employment or contractual relationships, which could foreseeably result in a conflict of interest with their acting on behalf of the medical staff. Elected or appointed medical staff leaders should disclose potential conflicts in writing to the medical staff whenever they arise.
>
> 2. Management of conflicts. When conflicts of interest exist, elected or appointed medical staff leaders should, as appropriate, recuse themselves from the deliberative process and/or abstain from voting on the matter to which the conflict relates. The medical staff should establish a process for disqualification from the deliberative process and/or from voting on the matter at hand for any elected or appointed medical staff leader with an identified conflict who fails to disclose the interest or who fails to recuse himself or herself from the deliberative process and/or from voting on the matter to which the conflict relates, as appropriate.

Neither Council on Ethical and Judicial Affairs (CEJA) opinions nor AMA Bylaws cite an explicit definition of COI. The AMA PolicyFinder database offers more information.

SUMMARY AND RECOMMENDATIONS

The AMA believes that all qualified health care professionals play an integral role in the delivery of health care in this country—a role that should be clearly defined by one's education and training.

Reaffirmation of Policies D-295.934, "Encouragement of Interprofessional Education Among Health Care Professions Students," and D-275.979, "Non-Physician 'Fellowship' Programs," would signify this support. Such education and training of non-physicians should not inhibit in any way the education and training of physicians, thus those responsible for interprofessional education and collaborations should appropriately manage the resources for such trainings. To promote transparency, interprofessional students and trainees may benefit from training on the differences that exist among them in the amount and depth of training as well as supervision and testing of that training. Non-physician roles and seats on a board that provides oversight to physicians should be clearly defined and transparent and these boards should not take actions that inhibit in any way the education, training, or practice of physicians. Careful consideration should be given to the management of COI.

The Council on Medical Education therefore recommends that the following recommendations be adopted in lieu of Resolve 8 of Resolution 305-J-21 and the remainder of this report be filed:

1. That our AMA support the concept that interprofessional education include a mechanism by which members of interdisciplinary teams learn about, with, and from each other; and that this education include learning about differences in the depth and breadth of their educational backgrounds, experiences, and knowledge and the impact these differences may have on patient care. (New HOD Policy)

2. That our AMA support a clear mechanism for medical school and appropriate institutional leaders to intervene when undergraduate and graduate medical education is being adversely impacted by undergraduate, graduate, and postgraduate clinical training programs of non-physicians. (New HOD Policy)

3. That Policies D-295.934, "Encouragement of Interprofessional Education Among Health Care Professions Students," and D-275.979, "Non-Physician "Fellowship" Programs," be reaffirmed. (Reaffirm HOD Policy)

4. That our AMA work with key regulatory bodies involved with physician education, accreditation, certification, licensing, and credentialing to a) increase transparency of the process by encouraging them to openly disclose how their board is composed and members are selected and b) review their conflict of interest and other policies related to non-physician health care professionals holding formal leadership positions (e.g., board, committee) when that non-physician professional represents a field that either possesses or seeks to possess the ability to practice without physician supervision. (Directive to Take Action)

5. That Policy D-275.949, "Non-Physician Postgraduate Medical Training," be rescinded, as having been accomplished by the writing of this report. (Rescind HOD Policy)

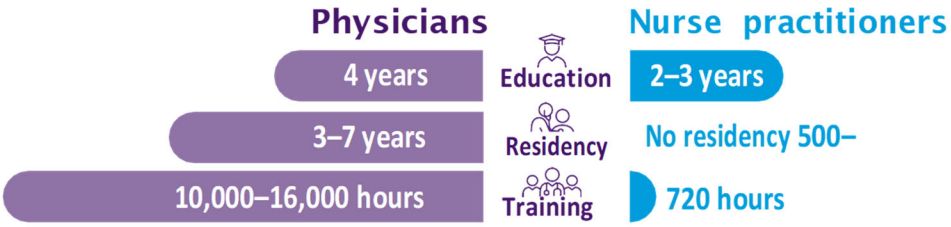
Fiscal note: $500

APPENDIX A: Physician vs Nurse Practitioner education and training

Physicians are trained to lead

AMA AMERICAN MEDICAL ASSOCIATION

With the highest level of education and 20x the clinical training



Physician education

Physician education is ...

Comprehensive: Studying all aspects of the human condition—biological, chemical, pharmacological and behavioral—in the classroom, laboratory and through direct patient care

Hands-on: Rotating through different specialties during medical school, assisting licensed physicians

Established and proven: Developing clinical judgment and medical decision-making skills through direct experience managing patients in all aspects of medicine

Physician residency is ...

Selective and specialized: Newly graduated physicians match into residency programs for 3–7 years of training in a select surgical or medical specialty

Reinforcing: Newly graduated physicians move from direct supervision to progressively increased responsibility in guided preparation for independently practicing medicine

Accredited: All residency programs are highly standardized and must be accredited by ACGME, with graded and progressive responsibility atthe core of American graduate medical education

Physician assessment and certification are ...

Thorough: Students must pass a series of exams during and following graduation from medical school, with MDs taking the USMLE and DOs taking the COMLEX

Validating: After completing an accredited residency and establishing licensed practice, physicians may obtain board certification in various specialties to further demonstrate their mastery of knowledge in a specific field of medicine

Nurse practitioner education

Nurse practitioner education is ...

Abbreviated: NPs can complete a master's (MSN) or doctorate degree (DNP), with the majority completing a master's degree in 2–3 years

Limited hands-on training: 60% of NP programs are completely or partially online

Not standardized: Unlike physician education and training there is **no** standardization for obtaining practical experience in patient care

Nurse practitioner residency is ...

Not required for graduation or licensure

Nurse practitioner assessment and certification are ...

Inconsistent: NPs must pass a national certifying exam in a specific area of focus (based on the type of program from which the NP graduated) but they are not required to practice in that area—meaning an NP certified in primary care can practice in cardiology, dermatology, neurology, orthopedics, and other specialties without any additional formal education or training

Every health care professional has an important role to play in the high-stakes field of medicine. But these high stakes demand education, experience, acumen, coordination and the robust management of care found only with physician-led teams.

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APPENDIX B: Physician education and training vs Physician Assistant[4]

	Undergraduate degree	**Entrance exam**	**Postgraduate schooling**	**Residency and duration**	**Total time for completion**	**Total patient care hours required through training**
Family Physician	Standards 4-year BA/BS	Medical College Admission Test (MCAT)	4-year doctoral program (MD or DO)	3-year family medicine residency	12-14 years	12,000-16,000 hours
Physician Assistant	Standard 4-year BA/BS (Not uniformly required)	Graduate Record Examination (GRE) (Not uniformly required)	2-2.5-year master's program (some award a bachelor's certificate or associate's)	None required	6-6.5 years	2,000 hours

APPENDIX C: Relevant AMA Policy

Interprofessional education

Encouragement of Interprofessional Education Among Health Care Professions Students D-295.934
1. Our AMA: (A) recognizes that interprofessional education and partnerships are a priority of the American medical education system; and (B) will explore the feasibility of the implementation of Liaison Committee on Medical Education and American Osteopathic Association accreditation standards requiring interprofessional training in medical schools.
2. Our AMA supports the concept that medical education should prepare students for practice in physician-led interprofessional teams.
3. Our AMA will encourage health care organizations that engage in a collaborative care model to provide access to an appropriate mix of role models and learners.
4. Our AMA will encourage the Liaison Committee on Medical Education, Commission on Osteopathic College Accreditation, American Osteopathic Association, and Accreditation Council for Graduate Medical Education to facilitate the incorporation of physician-led interprofessional education into the educational programs for medical students and residents in ways that support high quality medical education and patient care.
5. Our AMA will encourage the development of skills for interprofessional education that are applicable to and appropriate for each group of learners.

Non-Physician "Fellowship" Programs D-275.979
Our AMA will (1) in collaboration with state and specialty societies, develop and disseminate informational materials directed at the public, state licensing boards, policymakers at the state and national levels, and payers about the educational preparation of physicians, including the meaning of fellowship training, as compared with the preparation of other health professionals; and (2) continue to work collaboratively with the Federation to ensure that decisions made at the state and national levels on scope of practice issues are informed by accurate information and reflect the best interests of patients.

Physician and Nonphysician Licensure and Scope of Practice D-160.995
1. Our AMA will: (a) continue to support the activities of the Advocacy Resource Center in providing advice and assistance to specialty and state medical societies concerning scope of practice issues to include the collection, summarization and wide dissemination of data on the training and the scope of practice of physicians (MDs and DOs) and nonphysician groups and that our AMA make these issues a legislative/advocacy priority; (b) endorse current and future funding of research to identify the most cost effective, high-quality methods to deliver care to patients, including methods of multidisciplinary care; and (c) review and report to the House of Delegates on a periodic basis on such data that may become available in the future on the quality of care provided by physician and nonphysician groups.
2. Our AMA will: (a) continue to work with relevant stakeholders to recognize physician training and education and patient safety concerns, and produce advocacy tools and materials for state level advocates to use in scope of practice discussions with legislatures, including but not limited to infographics, interactive maps, scientific overviews, geographic comparisons, and educational experience; (b) advocate for the inclusion of non-physician scope of practice characteristics in various analyses of practice location attributes and desirability; (c) advocate for the inclusion of scope of practice expansion into measurements of physician well-being; and (d) study the impact of scope of practice expansion on medical student choice of specialty.

3. Our AMA will consider all available legal, regulatory, and legislative options to oppose state board decisions that increase non-physician health care provider scope of practice beyond legislative statute or regulation.

Practicing Medicine by Non-Physicians H-160.949
Our AMA: (1) urges all people, including physicians and patients, to consider the consequences of any health care plan that places any patient care at risk by substitution of a non-physician in the diagnosis, treatment, education, direction, and medical procedures where clear-cut documentation of assured quality has not been carried out, and where such alters the traditional pattern of practice in which the physician directs and supervises the care given;
(2) continues to work with constituent societies to educate the public regarding the differences in the scopes of practice and education of physicians and non-physician health care workers;
(3) continues to actively oppose legislation allowing non-physician groups to engage in the practice of medicine without physician (MD, DO) training or appropriate physician (MD, DO) supervision;
(4) continues to encourage state medical societies to oppose state legislation allowing non-physician groups to engage in the practice of medicine without physician (MD, DO) training or appropriate physician (MD, DO) supervision;
(5) through legislative and regulatory efforts, vigorously support and advocate for the requirement of appropriate physician supervision of non-physician clinical staff in all areas of medicine; and
(6) opposes special licensing pathways for “assistant physicians” (i.e., those who are not currently enrolled in an Accreditation Council for Graduate Medical Education training program or have not completed at least one year of accredited graduate medical education in the U.S).

The Structure and Function of Interprofessional Health Care Teams H-160.912
1. Our AMA defines 'team-based health care' as the provision of health care services by a physician-led team of at least two health care professionals who work collaboratively with each other and the patient and family to accomplish shared goals within and across settings to achieve coordinated, high-quality, patient-centered care.
2. Our AMA will advocate that the physician leader of a physician-led interprofessional health care team be empowered to perform the full range of medical interventions that she or he is trained to perform.
3. Our AMA will advocate that all members of a physician-led interprofessional health care team be enabled to perform medical interventions that they are capable of performing according to their education, training and licensure and the discretion of the physician team leader in order to most effectively provide quality patient care.
4. Our AMA adopts the following principles to guide physician leaders of health care teams:
   a. Focus the team on patient and family-centered care.
   b. Make clear the team's mission, vision and values.
   c. Direct and/or engage in collaboration with team members on patient care.
   d. Be accountable for clinical care, quality improvement, efficiency of care, and continuing education.
   e. Foster a respectful team culture and encourage team members to contribute the full extent of their professional insights, information and resources.
   f. Encourage adherence to best practice protocols that team members are expected to follow.
   g. Manage care transitions by the team so that they are efficient and effective, and transparent to the patient and family.
   h. Promote clinical collaboration, coordination, and communication within the team to ensure efficient, quality care is provided to the patient and that knowledge and expertise from team members is shared and utilized.

i. Support open communication among and between the patient and family and the team members to enhance quality patient care and to define the roles and responsibilities of the team members that they encounter within the specific team, group or network.
j. Facilitate the work of the team and be responsible for reviewing team members' clinical work and documentation.
k. Review measures of 'population health' periodically when the team is responsible for the care of a defined group.

5. Our AMA encourages independent physician practices and small group practices to consider opportunities to form health care teams such as through independent practice associations, virtual networks or other networks of independent providers.

6. Our AMA will advocate that the structure, governance and compensation of the team should be aligned to optimize the performance of the team leader and team members.

Residents and Fellows' Bill of Rights H-310.912

1. Our AMA continues to advocate for improvements in the ACGME Institutional and Common Program Requirements that support AMA policies as follows: a) adequate financial support for and guaranteed leave to attend professional meetings; b) submission of training verification information to requesting agencies within 30 days of the request; c) adequate compensation with consideration to local cost-of-living factors and years of training, and to include the orientation period; d) health insurance benefits to include dental and vision services; e) paid leave for all purposes (family, educational, vacation, sick) to be no less than six weeks per year; and f) stronger due process guidelines.

2. Our AMA encourages the ACGME to ensure access to educational programs and curricula as necessary to facilitate a deeper understanding by resident physicians of the US health care system and to increase their communication skills.

3. Our AMA regularly communicates to residency and fellowship programs and other GME stakeholders this Resident/Fellows Physicians' Bill of Rights.

4. Our AMA: a) will promote residency and fellowship training programs to evaluate their own institution's process for repayment and develop a leaner approach. This includes disbursement of funds by direct deposit as opposed to a paper check and an online system of applying for funds; b) encourages a system of expedited repayment for purchases of $200 or less (or an equivalent institutional threshold), for example through payment directly from their residency and fellowship programs (in contrast to following traditional workflow for reimbursement); and c) encourages training programs to develop a budget and strategy for planned expenses versus unplanned expenses, where planned expenses should be estimated using historical data, and should include trainee reimbursements for items such as educational materials, attendance at conferences, and entertaining applicants. Payment in advance or within one month of document submission is strongly recommended.

5. Our AMA will partner with ACGME and other relevant stakeholders to encourage training programs to reduce financial burdens on residents and fellows by providing employee benefits including, but not limited to, on-call meal allowances, transportation support, relocation stipends, and childcare services.

6. Our AMA will work with the Accreditation Council for Graduate Medical Education (ACGME) and other relevant stakeholders to amend the ACGME Common Program Requirements to allow flexibility in the specialty-specific ACGME program requirements enabling specialties to require salary reimbursement or "protected time" for resident and fellow education by "core faculty," program directors, and assistant/associate program directors.

7. Our AMA encourages teaching institutions to offer retirement plan options, retirement plan matching, financial advising and personal finance education.

8. Our AMA adopts the following "Residents and Fellows' Bill of Rights" as applicable to all resident and fellow physicians in ACGME-accredited training programs:

RESIDENT/FELLOW PHYSICIANS' BILL OF RIGHTS

Residents and fellows have a right to:

A. An education that fosters professional development, takes priority over service, and leads to independent practice.

With regard to education, residents and fellows should expect: (1) A graduate medical education experience that facilitates their professional and ethical development, to include regularly scheduled didactics for which they are released from clinical duties. Service obligations should not interfere with educational opportunities and clinical education should be given priority over service obligations; (2) Faculty who devote sufficient time to the educational program to fulfill their teaching and supervisory responsibilities; (3) Adequate clerical and clinical support services that minimize the extraneous, time-consuming work that draws attention from patient care issues and offers no educational value; (4) 24-hour per day access to information resources to educate themselves further about appropriate patient care; and (5) Resources that will allow them to pursue scholarly activities to include financial support and education leave to attend professional meetings.

B. Appropriate supervision by qualified physician faculty with progressive resident responsibility toward independent practice.

With regard to supervision, residents and fellows must be ultimately supervised by physicians who are adequately qualified and allow them to assume progressive responsibility appropriate to their level of education, competence, and experience. In instances where clinical education is provided by non-physicians, there must be an identified physician supervisor providing indirect supervision, along with mechanisms for reporting inappropriate, non-physician supervision to the training program, sponsoring institution or ACGME as appropriate.

C. Regular and timely feedback and evaluation based on valid assessments of resident performance.

With regard to evaluation and assessment processes, residents and fellows should expect: (1) Timely and substantive evaluations during each rotation in which their competence is objectively assessed by faculty who have directly supervised their work; (2) To evaluate the faculty and the program confidentially and in writing at least once annually and expect that the training program will address deficiencies revealed by these evaluations in a timely fashion; (3) Access to their training file and to be made aware of the contents of their file on an annual basis; and (4) Training programs to complete primary verification/credentialing forms and recredentialing forms, apply all required signatures to the forms, and then have the forms permanently secured in their educational files at the completion of training or a period of training and, when requested by any organization involved in credentialing process, ensure the submission of those documents to the requesting organization within thirty days of the request.

D. A safe and supportive workplace with appropriate facilities.

With regard to the workplace, residents and fellows should have access to: (1) A safe workplace that enables them to fulfill their clinical duties and educational obligations; (2) Secure, clean, and comfortable on-call rooms and parking facilities which are secure and well-lit; (3) Opportunities to participate on committees whose actions may affect their education, patient care, workplace, or contract.

E. Adequate compensation and benefits that provide for resident well-being and health.

(1) With regard to contracts, residents and fellows should receive: a. Information about the interviewing residency or fellowship program including a copy of the currently used contract clearly outlining the conditions for (re)appointment, details of remuneration, specific responsibilities including call obligations, and a detailed protocol for handling any grievance; and b. At least four months advance notice of contract non-renewal and the reason for non-renewal.

(2) With regard to compensation, residents and fellows should receive: a. Compensation for time at orientation; and b. Salaries commensurate with their level of training and experience.

Compensation should reflect cost of living differences based on local economic factors, such as housing, transportation, and energy costs (which affect the purchasing power of wages), and include appropriate adjustments for changes in the cost of living.
(3) With regard to benefits, residents and fellows must be fully informed of and should receive: a. Quality and affordable comprehensive medical, mental health, dental, and vision care for residents and their families, as well as retirement plan options, professional liability insurance and disability insurance to all residents for disabilities resulting from activities that are part of the educational program; b. An institutional written policy on and education in the signs of excessive fatigue, clinical depression, substance abuse and dependence, and other physician impairment issues; c. Confidential access to mental health and substance abuse services; d. A guaranteed, predetermined amount of paid vacation leave, sick leave, family and medical leave and educational/professional leave during each year in their training program, the total amount of which should not be less than six weeks; e. Leave in compliance with the Family and Medical Leave Act; and f. The conditions under which sleeping quarters, meals and laundry or their equivalent are to be provided.
F. Clinical and educational work hours that protect patient safety and facilitate resident well-being and education.
With regard to clinical and educational work hours, residents and fellows should experience: (1) A reasonable work schedule that is in compliance with clinical and educational work hour requirements set forth by the ACGME; and (2) At-home call that is not so frequent or demanding such that rest periods are significantly diminished or that clinical and educational work hour requirements are effectively circumvented. Refer to AMA Policy H-310.907, "Resident/Fellow Clinical and Educational Work Hours," for more information.
G. Due process in cases of allegations of misconduct or poor performance.
With regard to the complaints and appeals process, residents and fellows should have the opportunity to defend themselves against any allegations presented against them by a patient, health professional, or training program in accordance with the due process guidelines established by the AMA.
H. Access to and protection by institutional and accreditation authorities when reporting violations.
With regard to reporting violations to the ACGME, residents and fellows should: (1) Be informed by their program at the beginning of their training and again at each semi-annual review of the resources and processes available within the residency program for addressing resident concerns or complaints, including the program director, Residency Training Committee, and the designated institutional official; (2) Be able to file a formal complaint with the ACGME to address program violations of residency training requirements without fear of recrimination and with the guarantee of due process; and (3) Have the opportunity to address their concerns about the training program through confidential channels, including the ACGME concern process and/or the annual ACGME Resident Survey.

9. Our AMA will work with the ACGME and other relevant stakeholders to advocate for ways to defray additional costs related to residency and fellowship training, including essential amenities and/or high cost specialty-specific equipment required to perform clinical duties.
10. Our AMA believes that healthcare trainee salary, benefits, and overall compensation should, at minimum, reflect length of pre-training education, hours worked, and level of independence and complexity of care allowed by an individual's training program (for example when comparing physicians in training and midlevel providers at equal postgraduate training levels).
11.The Residents and Fellows' Bill of Rights will be prominently published online on the AMA website and disseminated to residency and fellowship programs.
12. Our AMA will distribute and promote the Residents and Fellows' Bill of Rights online and individually to residency and fellowship training programs and encourage changes to institutional processes that embody these principles.

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