

Certified Registered Nurse Anesthetists and Dry Needling in North Dakota

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Introduction

The North Dakota Association of Nurse Anesthetists (NDANA) was requested by staff members with the North Dakota Board of Nursing (NDBON) to answer two questions. First, do existing graduate entry-level nurse anesthesia educational programs include the didactic content and practicum experiences necessary for safe practice utilizing dry needling as an intervention for chronic pain management? Second, for the Certified Registered Nurse Anesthetist (CRNA) that desires to utilize dry needling as an intervention for chronic pain management, what additional education (didactic and practicum) would be necessary?

Background

The NDBON office staff received a request from Julie Bruhn, Associate Director for Patient Care/Nurse Executive with the Fargo Veterans Administration Health Care System regarding implementation of Battlefield Acupuncture (BFA), which would involve RNs and LPNs. NDBON staff conducted research related to acupuncture rules and exemptions. Staff indicated that the research revealed that BFA was performing acupuncture, which is a separate discipline requiring licensure and specific educational preparation. Therefore, any acupuncture, including BFA, would not fall in the scope of practice for nurses of any degree level without obtaining advanced education preparation and appropriate licensure.

In July 2016, the NDBON directors approved an interpretive statement that stated: “acupuncture is a discipline requiring licensure and specific education. Therefore, it is not within the scope of practice for advanced practice, registered and licensed practical nurses to perform acupuncture.” (NDBON minutes July 2016, Agenda item 7.1.1 Battlefield acupuncture) Following the publication of this interpretive statement, a CRNA with the Fargo Veterans Administration contacted the NDBON to clarify whether dry needling would be within the scope of practice for a CRNA in the state of North Dakota.

Terminology

Early in this study, for clarification, differentiating acupuncture from dry needling became apparent. Though similarities exist between acupuncture and dry needling, significant differences exist both in the underlying philosophies, in the explanation of the physiology and in the technique utilized.

The classical approach to acupuncture is based upon on a traditional Chinese medicine diagnosis of disharmonies in body functions and on the meridian theory to influence the flow of energy and other life substances to restore harmony in those functions. The modern definition of acupuncture varies. The Maryland and Delaware statutes define acupuncture as “a form of health care, based on a theory of energetic physiology that describes and explains the interrelationship of the body organs or functions with an associated acupuncture point(s) located on meridians”. Acupuncture needles are inserted over a region where meridians come to the surface of the skin, to restore qi, or vital energy. (Kelley & Dommerholt, 2011)

Dry needling is also known as myofascial trigger point dry needling and/or intramuscular stimulation. This technique involves the insertion of solid fine filament needles. In contrast to dry needling, wet needling involves the use of hollow bore needles that allow for solutions, such as local anesthetic and/or steroids, to be injected.

There are different approaches that describe dry needling techniques. For example, a neuroanatomical approach utilizes anatomy and physiology, is based upon a Western diagnosis, and involves the insertion of dry needles at several specific points to achieve the desired outcome. An intramuscular stimulation approach utilizes neurophysiologic and neuropathologic principles for the insertion of dry needles to achieve the desired outcome. (Physiotherapy Alberta, 2007)

Facts

There are currently four types of advanced practice registered nurses in the United States: Certified Nurse Practitioner, Certified Nurse Midwife, Certified Registered Nurse Anesthetist, and Clinical Nurse Specialist. As the focus of this paper is specific to the clinical practice for CRNAs, the other types of APRNs will not be included in this discussion.

As with other skills and interventions, dry needling is performed by multiple healthcare providers. “No single profession owns any procedure or intervention. Overlap among professions is expected and necessary for access to high quality care” (FSBPT, 2013, p. 2). Healthcare providers known to perform dry needling include physicians, physical therapists, acupuncturists, chiropractors, and advanced practice registered nurses. All of these providers have education of varying length to potentially position them knowledgeable for dry needling administration. Entry-level educational curriculums for each of the above disciplines commonly include the following courses: anatomy, physiology, pathophysiology, chemistry, biochemistry, and pharmacology. Among these multiple disciplines, educational programs for the different disciplines do not share common curriculum standards. This makes it difficult to cross over from one discipline to another, even if for a mere specific segment of education such as dry needling education and practicum.

According to the North Dakota Nurse Practice Act 43-12.1-08 (1) Powers and Duties of the Board, the Board of Nursing regulates the practice of nursing to assure qualified competent licensees and standards. The Board mission is to assure ND citizens quality nursing care through high quality regulation of standards for nursing education, licensure, and practice. Aligning with

the Board's duties and mission, nursing practice inquiries are accepted for consideration. In March 2017, the Board approved policy to address nursing practice inquiries and interpretive and practice statements. (See Appendix A: Scope of Practice Decision-Making Framework) Utilizing this framework, an APRN may add new procedures and patient care activities to their individual scope of practice by using the following guidelines:

- Identify benefit associated with new activity
- Align with state and federal statutes and regulation for nursing
- Identify professional standards
- Establish goals and methods for learning to attain competence in knowledge and skills
- Demonstrate competency performance of new procedure or activity
- Maintain records of competency for acquisition and maintenance of competency

The NDBON currently recognizes the Scope of Nurse Anesthesia Practice from the American Association of Nurse Anesthetists (AANA) for CRNAs in North Dakota. (See Appendix B: AANA Scope of Nurse Anesthesia Practice). It is important to note that the AANA has an existing document (2014) that addresses the addition of new activities to individual CRNA scope of practice. (See Appendix C: AANA Considerations for Adding New Activities to Individual CRNA Scope of Practice)

This document is congruent with the scope of practice decision-making framework approved by the NDBON in March 2017 and serves as an analytical checklist and decision-making framework for the CRNA to consider:

- Nurse Anesthesia Professional Scope, Standards, Guidelines and Ethics
- State and Federal Statutes, Regulations, and Rules
- CRNA Individual Practice Assessment
- Facility Assessment of accreditation, credentialing, bylaws, QIA, policy and procedure protocols
- Professional Liability Insurance

Both the *Scope of Nurse Anesthesia Practice* and *Considerations for Adding New Activities to Individual CRNA Scope of Practice* documents developed by the AANA support scope of practice and policy decisions for the safe and effective delivery of anesthesia services.

CRNAs are known to continuously engage in lifelong professional learning and professional development throughout their careers. A CRNA may choose to advance their specialty clinical practice expertise and competency, for which the AANA has developed a position statement. (See Appendix D: CRNA Specialty Clinical Practice) According to the AANA:

Specialty practice development over a career may encompass continuing education courses, workshops, self-study, mentored practice, accredited fellowships, as well as other educational activities. Ultimately, individual specialty practice evaluation occurs in the practice setting through peer review and a continuous quality improvement program. (2015)

Findings

AANA Connect. As part of this initial study, we attempted to determine what level of interest existed among CRNA practitioners in the United States for dry needling. This was intended to be a quick rudimentary survey of interest. A question was posted on AANA Connect, a social network through the American Association of Nurse Anesthetists (AANA). The question read, “Inquiring of nurse anesthesia providers performing dry needling in their practice. As opioid abuse is a national concern, alternative pain therapy modalities emerge. Information regarding educational coursework and practicum information of interest.”

A total of five CRNAs replied to the posted question. Three of the CRNA replies reflected a curiosity in the topic of dry needling. One CRNA reply, authorized in the military, stated that they perform auriculotherapy to treat nausea and vomiting. The fifth CRNA stated they were a diplomat with the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM), PhD, CRNA, CHSE (Certified Healthcare Simulation Educator) and licensed acupuncturist. Interestingly, this individual expressed interest in the CRNA “getting traction on CRNAs being capable of doing limited acupuncture but...might be too much of an uphill battle with only a small fraction of support that would be required to move this forward.” This individual recommended that additional coursework could be completed through the NCCAOM (2000 hours). Following coursework completion, four optional examinations are available through NCCAOM: Foundation of Oriental Medicine (FOMM), Acupuncture with Point Location (ACU), Chinese Herbology (CHE) and Biomedicine (BIO). The price for each of these examinations is \$300.

Nurse Anesthesia Education. Additional information regarding the education of CRNAs was sought from the American Association of Nurse Anesthetists (AANA) regarding dry needling. CRNAs are highly educated anesthesia experts who provide patients every type of anesthesia (general, regional, sedation, and pain management) across the United States in every healthcare setting. If utilized by the CRNA, dry needling would most likely be used as an intervention for the treatment of patients with chronic pain.

Information was requested through the AANA regarding the education and professional development of CRNAs with respect to dry needling and more broadly chronic pain management. A response was received from Bruce A. Schoneboom, PhD, CRNA, FAAN, Senior Director, Education and Professional Development. Dr. Schoneboom shared the current standards for pain management experiences in entry-level nurse anesthesia educational programs (personal communication, March 7, 2017).

Entry-Level Nurse Anesthesia Program Standards. The Council on Accreditation of Nurse Anesthesia Educational Programs (COA) determines standards for nurse anesthesia educational programs. The curriculum for a COA accredited program is required to be designed to focus on the full scope of nurse anesthesia practice. This curriculum includes the following (COA Practice Doctorate Standards E2, 2.1-2.3):

- Courses: Advanced Physiology/Pathophysiology, Advanced Pharmacology, Basic and Advanced Principles in Nurse Anesthesia, and Advanced Health Assessment.

- Content: Advanced Physiology/Pathophysiology (120 contact hours), advanced pharmacology (90 contact hours), basic and advanced principles in nurse anesthesia (120 contact hours), research (75 contact hours), advanced health assessment (45 contact hours), human anatomy, chemistry, biochemistry, physics, genetics, ***acute and chronic pain management***, radiology, ultrasound, anesthesia equipment, professional role development, wellness and substance use disorder, informatics, ethical and multicultural healthcare, leadership and management, business of anesthesia/practice management, health policy, healthcare finance, integration/clinical correlation.
- Clinical Experiences (See Appendix E: Clinical Experience Requirements for Nurse Anesthesia Educational Programs).

Each nurse anesthesia educational program is required to provide didactic content on acute and chronic pain management. In addition, specific clinical experiences in pain management, or pain management encounters, are required. According to the COA, pain management encounters are defined as:

Individual one-on-one patient interactions for the express purpose of intervening in an acute pain episode or a chronic pain condition. Pain management encounters must include a patient assessment before initiating a therapeutic action. Pain management encounters include but are not limited to the following (COA Practice Doctorate Standards Definitions, p. 37):

1. Initiation of epidural or intrathecal analgesia.
2. Facilitation or initiation of patient controlled analgesia.
3. Initiation of regional analgesia techniques for postoperative pain or other nonsurgical pain conditions including but not limited to plexus blocks, local anesthetic infiltration of incisions, intercostal blocks, etc.
4. Adjustment of drugs delivered, rates of infusion, concentration or dose parameters for an existing patient controlled analgesia or patient controlled epidural analgesia.
5. Pharmacologic management of an acute pain condition in post anesthesia care unit.
6. Trigger point injections.
7. Electrical nerve stimulation.

The clinical experiences and pain management encounters that students use to meet this requirement will vary by educational program.

Post-Graduate Pain Management Education. For the CRNA that seeks to enhance their pain management practice, the American Association of Nurse Anesthetists (AANA) offers CRNAs a number of different post-graduate pain management education programs that include workshops and fellowships. Current workshops and fellowships are listed below as examples:

Jack Neary Advanced Pain Management I Workshop

AANA Workshop – Rosemont, IL

Website: <http://www.aana.com/meetings/aanaworkshops/Pages/Jack-Neary-Advanced-Pain-Management-I-Workshop.aspx>

Cost: \$3,200

Workshop Length: 3 days

Description: This workshop aims to expand CRNA knowledge of interventional pain management through didactic and hands-on training. Content areas include: Physical Assessment, Theoretical Foundations: Pain Specialty Learning Model, Neuroscience of Pain, Advanced Scientific Basis of Pharmacology, Multi-dimensional Aspects of Pain Management, Evaluation of Pain – Types of Pain and Diagnostic Impression Models, and Imaging for Spinal Anatomy.

Jack Neary Advanced Pain Management II Workshop

AANA Workshop – Rosemont, IL

Website: <http://www.aana.com/meetings/aanaworkshops/Pages/Jack-Neary-Advanced-Pain-Management-II-Workshop.aspx>

Cost: \$2,700

Workshop Length: 2 days

Description: This second workshop is for CRNAs with practical experience in interventional pain management. Content areas include: Advanced Radiological Interpretation, Complications in Pain Management, Institutional Diversion and Current Trends in Prescription Drug Abuse, Examination and Injections of Major Joints, Difficulties in Managing Pain of the High-Risk Patient: A Psychological Perspective, Ablation, and Future of Pain Management and Role of the CRNA

Post Graduate Advanced Non-Surgical Pain Management Fellowship

Harris College of Nursing and Health Sciences

Texas Christian University, Fort Worth, TX

Website: <https://crna.tcu.edu/advanced-pain-management-fellowship>

Estimated Cost: \$42,655

Program Length: 12 months

Description: This fellowship program started in 2016. Consists of nine online courses and three clinical practicums for total of 22 credit hours. Upon completion CRNA pain management practitioners are eligible to take the National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA) subspecialty certification examination for Nonsurgical Pain Management (NSPM).

Post Graduate Acute Surgical Pain Management Fellowship

Middle Tennessee School of Anesthesia

Madison, TN

Website: <http://mtsa.edu/admissions/fellowship>

Estimated Cost: \$17,500

Program Length: 12 months

Description: This is a new fellowship program that begins Summer 2017. Utilizes a multidisciplinary training environment for the comprehensive treatment of acute surgical pain. Advanced techniques in management of acute post-surgical pain through ultrasound guided regional anesthesia education, online discussion, coursework, and clinical opportunities with mentors experienced in acute surgical pain management.

Subspecialty Certification. CRNAs now have the option to apply for a subspecialty for nurse anesthetists in Nonsurgical Pain Management (NSPM). The National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA) offers this credential.

Other Examples of Dry Needling Courses. As was previously mentioned, Physical Therapists are healthcare providers known to perform dry needling in certain states. Dry needling is generally not included in entry-level Physical Therapy educational programs. A Physical Therapist can add dry needling to their scope of practice with additional training. The Federation of State Boards of Physical Therapy requires 27 hours of training, however the actual number of required hours varies by state. For discussion purposes, a few examples of workshops for Physical Therapists are listed below:

IDN Foundational Dry Needling Course

Dr. Ma's Integrative Dry Needling
Website: <https://integrativedryneedling.com>
Estimated Cost: \$1,295
Course Length: 3 days

Description: The purpose of the Neurologic Dry Needling for Pain Management and Sports Rehabilitation Course is to obtain knowledge and clinical skills necessary to diagnose and treat soft tissue pain and dysfunction using the Integrative Dry Needling (IDN) concept. This 27-hour applied-learning course combines interactive lectures and practical hands-on labs. Students participate in several practical sessions, which are intended to provide feedback to students regarding their comprehension of key concepts and techniques. These practical lab sessions enable students to critically self-evaluate if additional instruction or self-study is needed for clinical competency.

Functional Dry Needling Course 1

Kinetacore Physical Therapy Education
Website: <https://www.kinetacore.com>
Estimated Cost: \$1,250
Course Length: 2 or 3-day course

Description: Teaches important dry needling technique and involves ample lab time to test, practice and perfect the art and science of Functional Dry Needling to offer this to your patients the very next day. Musculature taught in the introductory level involves areas of the hip, lower extremity, thigh, upper extremity, shoulder, lumbar spine and cervical spine. A strong emphasis on safety and precaution is reinforced, as well as clinical application, research, history of dry needling, and relevant case study. Upon completion of this introductory level course, each practitioner will understand trigger

points and the clinical presentation of neuromuscular dysfunction. They will demonstrate competency in dry needling of the muscles covered and will understand indications, contraindications, precautions and complications associated with Functional Dry Needling. To earn this certificate, all practitioners must pass both a theoretical and practical examination.

Discussion

The specific intervention of dry needling is not required in current graduate entry-level education programs or in post-graduate pain management coursework. Students may gain clinical experience with dry needling as a chronic pain encounter during their entry-level nurse anesthesia program. However, this is not consistent across programs.

For the CRNA provider in the United States, dry needling is currently not a technique often requested. This may explain why dry needling may not be commonly encountered by students in entry-level nurse anesthesia programs or by practicing CRNAs in post-graduate pain management education workshops and fellowships.

With that stated, CRNAs are continuously engaged in lifelong professional learning and they seek the best ways to provide safe and effective anesthesia care to patients. CRNAs play an integral role in ensuring that patients have access to care, especially in rural states such as North Dakota.

While dry needling is not a common intervention at this time, it may become an option for the CRNA as chronic pain management continues to evolve. With appropriate continuing education and clinical mentorship, a CRNA would be well positioned to utilize this intervention. CRNAs are experts in regional anesthesia, which involves the injection of medication through a needle. A similar technique is used with dry needling, but the needle is without an internal opening and relies on either the use of a stimulator or body responses.

As the clinical practice for chronic pain management continues to evolve, so do the educational resources for CRNAs. Educational offerings for professional development, including workshops and fellowships, continue to be introduced and enhanced to ensure that CRNAs are able to practice in a manner that is consistent with the current evidence and best practice. However, these lengthy post-graduate education programs, particularly the fellowship programs, are designed for the CRNA focused on chronic pain management.

Concern is warranted that the added post-graduate preparation doesn't become a barrier to practice due to exorbitant expense, relocation requirements, and time demands for the CRNA. Depending upon the practice topic, dry needling, for an example, is very similar to trigger point injections (which is included in graduate entry-level CRNA preparation) such that extensive, lengthy additional education requirements in chronic pain management become disproportionate to the financial and personal sacrifice required by agencies validating knowledge and competency.

It does seem excessive for the CRNA that has already been educated in the administration of trigger point injections (TPI), who now requests to add dry needling to their scope of practice, would be required to complete a full accredited course in chronic pain management.

We believe that continuing education activities, approved by an accredited provider such as the American Association of Nurse Anesthetists, would be sufficient to meet the education requirements necessary to perform the intervention. The continuing education content would need to provide the knowledge, skills, and competencies required for the CRNA to safely perform dry needling. The AANA does support CRNAs utilizing mentored practice as one method to demonstrate competency to include the intervention in their scope of practice.

While a course for dry needling is not currently offered through the AANA, it may be in the future should there be enough demand from CRNAs. Other dry needling courses are available and should be assessed to assure the courses are recognized didactic and practicum preparation as foundation for safe practice of treatment intervention by the CRNA.

Insights for the Future

The Institute of Medicine (IOM) estimates that 116 million Americans are affected by chronic pain and costs the U.S. over \$600 billion annually in medical treatment and loss of productivity in the workplace (2011). Chronic pain management will drive healthcare providers to collaborate in patient pain programs. Multiple providers will be needed to meet the needs of the population we serve to ensure that patients have access to care.

With substance abuse (i.e. opioids) being a national crisis, healthcare providers and patients are seeking alternative measures in pain management. Interventional means of acute and chronic pain management are an essential focus in healthcare delivery. The CRNA is well positioned with entry-level education and clinical experience (practicum) for a clinical practice that includes both acute and chronic pain management. Certain alternative measures in chronic pain management may not be included in CRNA entry-level education. These measures would require additional education from a course or program that is approved by an accredited provider to assure safety for the patient and address liability exposure for the licensee and the regulatory board.

Many considerations in acute and chronic pain management will drive regulators, liability agencies, healthcare providers to streamline how to validate competency and safety for the public. Regulatory boards are tasked to garner safe and competent providers to ensure public safety. An expedient means to validate knowledge and competency is graduation from an accredited program with a credential and certification. However, added extensive coursework could become a barrier to practice associated with prohibitive expense and relocation.

Conclusion

The current opioid crisis and ensuring access to safe anesthesia care across the United States are driving CRNAs to consider novel approaches for pain management. Healthcare continues to change rapidly as does the evidence that supports best practice. CRNAs and other healthcare professions need to continually evolve their clinical practice to meet the changing needs of our patients.

Given the depth and breadth of their professional education and clinical expertise utilizing multiple treatment modalities for acute and chronic pain management, the North Dakota Association of Nurse Anesthetists (NDANA) believes that CRNAs are well-positioned and equipped to safely perform dry needling. Dry needling is very closely related to regional blocks (i.e. trigger point injections) that CRNAs currently utilize for pain management.

To answer the questions posed by staff members with the NDBON, if the CRNA can verify education and practicum of dry needling as part of their entry-level education, dry needling should be considered within that individual's scope of practice.

If this is an added dimension to their existing practice, then a regulatory board, health care facility, liability insurer and malpractice insurer would likely require evidence of additional continuing education activities as one method of assuring competence and safety. The continuing education content would need to provide the knowledge, skills, and competencies required for the CRNA to safely perform dry needling. Continuing education activities would need approval by the American Association of Nurse Anesthetists or another recognized approval or accrediting organization. The individual practitioner should maintain records that reflect the acquisition and maintenance of knowledge, skills, and competencies for regulatory and liability purposes.

The AANA has an existing decision-making framework for CRNAs who desire to add activities to their scope of practice. This framework is congruent with the decision-making framework approved by the NDBON in March 2017. These frameworks can be effective tools for the individual CRNA to use when considering a new activity or intervention in compliance with prevailing standards of safe nursing care.

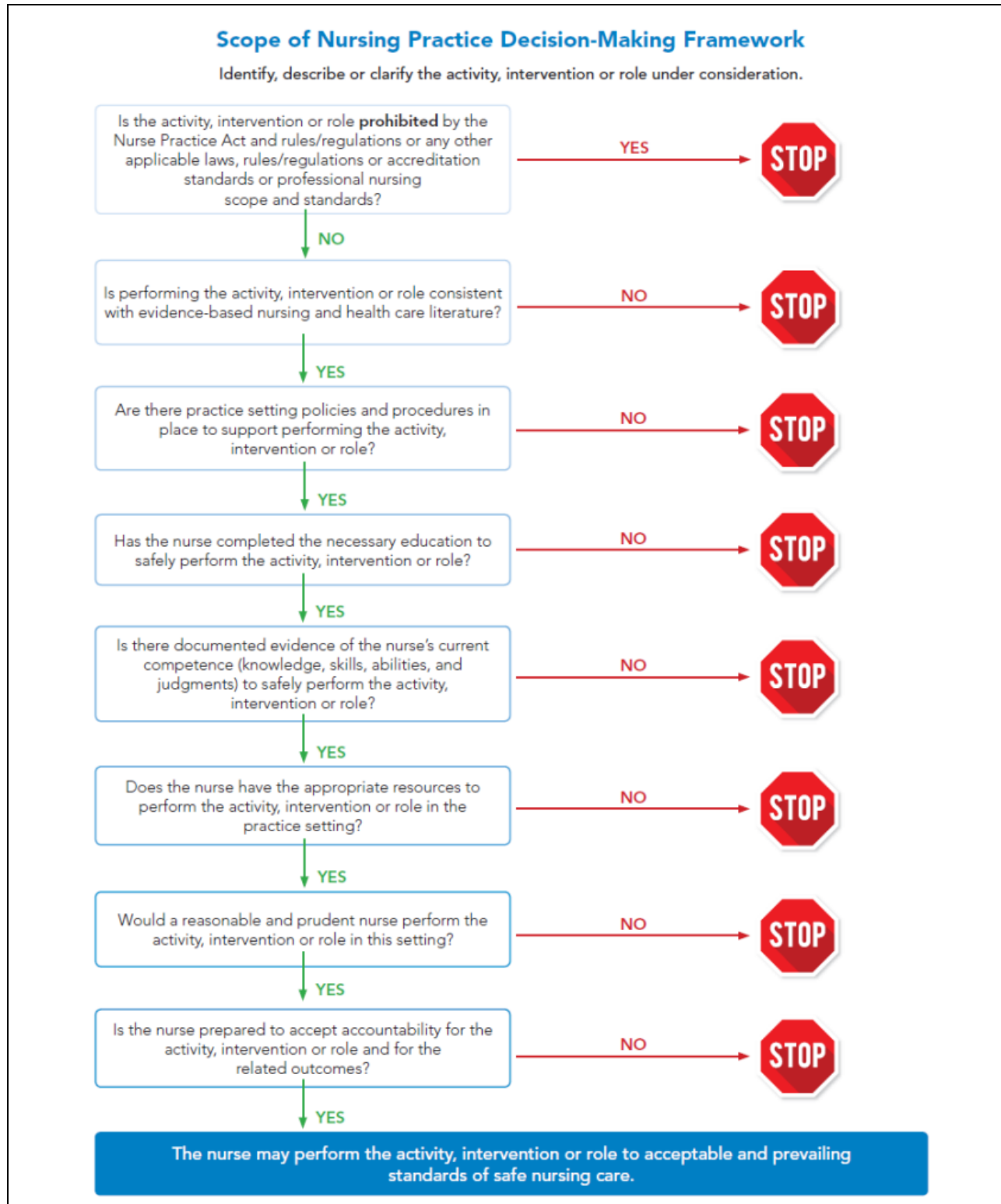
References

- American Association of Nurse Anesthetists. (2014). *Considerations for Adding New Activities to Individual CRNA Scope of Practice*. Retrieved from <http://www.aana.com/resources2/professionalpractice/Documents/Considerations%20for%20Adding%20New%20Activities%20to%20Individual%20CRNA%20Scope%20of%20Practice.pdf>
- American Association of Nurse Anesthetists. (2017). Continuing education program for the Certified Registered Nurse Anesthetist. (16th ed.) Retrieved from <http://www.aana.com/ceandeducation/continuingeducation/Documents/2017CEBookletFinal.pdf>
- American Association of Nurse Anesthetists. (2015). CRNA Specialty Clinical Practice Position Statement. Retrieved from: [https://www.aana.com/docs/default-source/practice-aana-com-web-documents-\(all\)/crna-specialty-clinical-practice.pdf?sfvrsn=db0049b1_2](https://www.aana.com/docs/default-source/practice-aana-com-web-documents-(all)/crna-specialty-clinical-practice.pdf?sfvrsn=db0049b1_2)
- American Association of Nurse Anesthetists. (2017). *Jack Neary Advanced Pain Management Workshop, Part I*. Retrieved from <http://www.aana.com/meetings/aanaworkshops/Pages/Jack-Neary-Advanced-Pain-Management-I-Workshop.aspx>
- American Association of Nurse Anesthetists. (2017). *Jack Neary Advanced Pain Management Workshop, Part II*. Retrieved from <http://www.aana.com/meetings/aanaworkshops/Pages/Jack-Neary-Advanced-Pain-Management-II-Workshop.aspx>
- American Association of Nurse Anesthetists. (2013). *Scope of Nurse Anesthesia Practice*. Retrieved from <http://www.aana.com/resources2/professionalpractice/Documents/PPM%20Scope%20of%20Nurse%20Anesthesia%20Practice.pdf>
- Council on Accreditation of Nurse Anesthesia Educational Programs. (2017). *Standards for Accreditation of Nurse Anesthesia Programs: Practice Doctorate*. Retrieved from <http://home.coa.us.com/accreditation/Documents/Standards%20for%20Accreditation%20of%20Nurse%20Anesthesia%20Programs%20-%20Practice%20Doctorate,%20rev%20May%202017.pdf>
- Dr. Ma's Dry Needling Institute. (2017). *IDN Foundational Dry Needling Course*. Retrieved from <https://integrativedryneedling.com>
- Federation of State Boards of Physical Therapy. (2013). *FSBPT Dry Needling Resource Paper*. Retrieved from http://www.fsbpt.org/download/dryneedlingresourcepaper_4thedition.pdf
- Institute of Medicine of the National Academies. (2011). *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*. Retrieved from <http://www.nationalacademies.org/hmd/~/media/Files/Report%20Files/2011/Relieving-Pain-in-America-A-Blueprint-for-Transforming-Prevention-Care-Education-Research/Pain%20Research%202011%20Report%20Brief.pdf>

- Kelly, L., & Dommerholt, J. (2011, March 27). *Trigger point pain responds to manual and instrument-assisted methods*. Advance Healthcare Network for NPs & PAs.
- Kinetacore Physical Therapy Education. (2017). *Functional Dry Needling Level 1*. Retrieved from <http://www.kinetacore.com/>
- Middle Tennessee School of Anesthesia. (2017). *Acute Surgical Pain Management Fellowship*. Retrieved from <http://mtsa.edu/admissions/fellowship/>
- National Council of State Boards of Nursing. (2016). *Scope of Practice Decision-Making Framework*. Retrieved from https://www.ncsbn.org/2016_Decision-Making-Framework.pdf
- North Dakota Nurse Practices Act, NDCC 43-12.1
- North Dakota Standards of Practice for the Advanced Practice Registered Nurse, NDAC 54-05-03.1
- Physiotherapy Alberta. (2007). *Dry Needling Competency for Physical Therapists*. Retrieved from https://www.physiotherapyalberta.ca/files/competency_profile_dry_needling.pdf
- TCU Harris College of Nursing & Health Sciences. (2017). *Advanced Pain Management Fellowship*. Retrieved from <https://crna.tcu.edu/advanced-pain-management-fellowship/>

Appendix A: Scope of Practice Decision-Making Framework

SOURCE: National Council of State Boards of Nursing (2016). Website: https://www.ncsbn.org/2016_Decision-Making-Framework.pdf



Appendix B: AANA Scope of Nurse Anesthesia Practice

SOURCE: American Association of Nurse Anesthetists (2013). Website: <http://www.aana.com/resources2/professionalpractice/Documents/PPM%20Scope%20of%20Nurse%20Anesthesia%20Practice.pdf>



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Scope of Nurse Anesthesia Practice

Professional Role

Certified Registered Nurse Anesthetists (CRNAs) are advanced practice registered nurses (APRNs) licensed as independent practitioners. CRNAs practice both autonomously and in collaboration with a variety of health providers on the interprofessional team to deliver high-quality, holistic, evidence-based anesthesia and pain care services. Nurse anesthetists care for patients at all acuity levels across the lifespan in a variety of settings for procedures including, but not limited to, surgical, obstetrical, diagnostic, therapeutic, and pain management. CRNAs serve as clinicians, researchers, educators, mentors, advocates, and administrators.

Education, Accountability and Leadership

CRNAs enter the profession following successful completion of graduate or post-graduate education from an accredited nurse anesthesia program and after passing the National Certification Examination. CRNAs embrace lifelong learning and practice professional excellence through ongoing recertification and continuous engagement in quality improvement and professional development. The scope of nurse anesthesia practice is determined by education, experience, state and federal law, and facility policy. CRNAs are accountable and responsible for their services and actions, and for maintaining their individual clinical competence. Nurse anesthetists are innovative leaders in anesthesia care delivery, integrating progressive critical thinking and ethical judgment.

Anesthesia Practice

The practice of anesthesia is a recognized nursing and medical specialty unified by the same standard of care. Nurse anesthesia practice may include, but is not limited to, these elements: performing a comprehensive history and physical; conducting a preanesthesia evaluation; obtaining informed consent for anesthesia; developing and initiating a patient-specific plan of care; selecting, ordering, prescribing and administering drugs and controlled substances; and selecting and inserting invasive and noninvasive monitoring modalities. CRNAs provide acute, chronic and interventional pain management services, as well as critical care and resuscitation services; order and evaluate diagnostic tests; request consultations; and perform point-of-care testing. CRNAs plan and initiate anesthetic techniques, including general, regional, local, and sedation. Anesthetic techniques may include the use of ultrasound, fluoroscopy and other technologies for diagnosis and care delivery, and to improve patient safety and comfort. Nurse anesthetists respond to emergency situations using airway management and other techniques; facilitate emergence and recovery from anesthesia; and provide post-anesthesia care, including medication management, conducting a post-anesthesia evaluation, and discharge from the post-anesthesia care area or facility.

The Value and Future of Nurse Anesthesia Practice

CRNAs practice in urban and suburban locations, and are the primary anesthesia professionals providing care to the U.S. Military, rural, and medically underserved populations. The CRNA scope of practice evolves to meet the healthcare needs of patients and their families as new research and technologies emerge. As APRNs, CRNAs advocate for the removal of scope of practice barriers to increase patient access to high-quality, comprehensive care.

In 1980, the "Scope of Practice" statement was first published as part of the *American Association of Nurse Anesthetists Guidelines for the Practice of the Certified Registered Nurse Anesthetist*. In 1983, the "Standards for Nurse Anesthesia Practice" and the "Scope of Practice" statement were included together in the *American Association of Nurse Anesthetists Guidelines for the Practice of the Certified Registered Nurse Anesthetist*. That document subsequently had the following name changes: *Guidelines for Nurse Anesthesia Practice* (1989); *Guidelines and Standards for Nurse Anesthesia Practice* (1992); and *Scope and Standards for Nurse Anesthesia Practice* (1996). The *Scope and Standards for Nurse Anesthesia Practice* was most recently revised in January 2013. In February 2013, the AANA Board of Directors approved separating the *Scope and Standards for Nurse Anesthesia Practice* into two documents: the *Scope of Nurse Anesthesia Practice* and the *Standards for Nurse Anesthesia Practice*. In June 2013, the AANA Board of Directors approved revisions to the *Scope of Nurse Anesthesia Practice*.

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Appendix C: AANA Considerations for Adding New Activities to Individual CRNA Scope of Practice

SOURCE: American Association of Nurse Anesthetists (2014). Website: <http://www.aana.com/resources2/professionalpractice/Documents/Considerations%20for%20Adding%20New%20Activities%20to%20Individual%20CRNA%20Scope%20of%20Practice.pdf>



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Considerations for Adding New Activities to Individual CRNA Scope of Practice

Legislators and regulatory agencies look to the American Association of Nurse Anesthetists (AANA) for resources that represent the professional practice of the Certified Registered Nurse Anesthetist (CRNA). The AANA develops documents and information to support scope of practice and policy decisions for the delivery of safe and effective anesthesia services. The *Scope of Nurse Anesthesia Practice* embodies the broad continuum of nurse anesthesia practice rather than a detailed list of nurse anesthesia services. Throughout their careers, CRNAs will incorporate new techniques and technologies into their practice to improve patient outcomes.

The decision to add a new activity is complex and based on considerations unique to the individual CRNA, facility, and state. This document is intended to provide the CRNA with a tool to conduct an analysis to clarify whether a specific procedure or technique is related to anesthesia and within the individual CRNA's scope of practice. This analysis checklist is not intended to be sequential, only to provide a framework for the individual CRNA to make an informed decision regarding his or her scope of nurse anesthesia practice.

Nurse Anesthesia Professional Scope, Standards, Guidelines, and Ethics

- Is the act related to anesthesia? If not, it may be within the RN scope of practice as determined by your state board of nursing (or applicable governing body). You may consider consulting your state board of nursing.
- Is the act within your professional scope of practice as defined by the *Scope of Nurse Anesthesia Practice* and the *Guidelines for Core Clinical Privileges for Certified Registered Nurse Anesthetists*?
- Will the act be performed in compliance with the *Standards for Nurse Anesthesia Practice*?
- Is the act consistent with the ethical standards in the *Code of Ethics for the Certified Registered Nurse Anesthetist*?

State and Federal Statutes, Regulations, and Rules

- Do you hold the appropriate licensure or authorization to practice in the state?
- Is the act expressly permitted or prohibited by the state nurse practice act, nursing rules and regulations, or other applicable state statute or regulations?
- Has the state board of nursing (or applicable governing body) rendered an opinion on whether the act is within CRNA scope of practice? You may consider consulting your state licensing board, which is typically the board of nursing.
- Is performance of the act in compliance with applicable federal authorities, such as Centers for Medicare & Medicaid Services (CMS) regulations?

This information is not intended as legal advice or a legal opinion. For legal advice, please consult an attorney in your state.

CRNA

- Would a reasonable and prudent CRNA perform this activity in this setting?
- Are you prepared to accept the responsibility of your actions?
- Is your performance of the act consistent with evidence-based care?
- Do you possess the knowledge, skills, and ability to perform the act safely and effectively?
- Do you have access to the equipment and resources to perform the act safely and effectively?
- Have you demonstrated and maintained the competencies necessary for the privilege? (The AANA recommends that you maintain evidence of education, training, competence assessment, peer review, and outcomes, when available.)
- Does the procedure meet applicable reimbursement criteria set by health care payers? Will you be reimbursed for the service?
- Will your professional liability carrier provide coverage for the procedure?

Facility

- Is performance of the act in compliance with state laws and regulations that apply to the facility in which the act will be performed (e.g., hospital, ambulatory surgical center, physician's office)?
- Is performance of the act in compliance with accreditation standards that apply to the facility in which the act will be performed (e.g., hospital, ambulatory surgical center, physician's office)?
- Has the facility approved policies and procedures, bylaws (if necessary), a quality improvement process, or other structures to support performance of the act?
- Do you have the specific education and documentation of competency to apply for privileges to perform the act?
- Are you appropriately credentialed and privileged at your facility to perform this procedure or act?

Insurance Considerations

CRNAs are encouraged to consult with their malpractice insurance carrier to confirm coverage for the specific procedures at issue. CRNAs who are insured under their facility's malpractice insurance should address coverage questions with the facility's risk management department.

State Association Resources

CRNAs should consider contacting their state nurse anesthetist association for additional information regarding state scope of practice. The state nurse anesthetist association may be aware of resources addressing your question, including relevant state board of nursing documents.

Contact the AANA

If you have questions as you work through or have completed the scope of nurse anesthesia practice analysis, please contact the Professional Practice Division at practice@aana.com or 847-655-8870.

AANA Resources

Additional resources are on the AANA website at www.aana.com. All Professional Practice documents can be accessed at www.aana.com > Resources > Professional Practice > Professional Practice Documents.

- [Scope of Nurse Anesthesia Practice](#)
- [Standards for Nurse Anesthesia Practice](#)
- [Code of Ethics for the Certified Registered Nurse Anesthetist](#)
- [Guidelines for Core Clinical Privileges for Certified Registered Nurse Anesthetists](#)

*This information is **not** intended as legal advice or a legal opinion. For legal advice, please consult an attorney in your state.*

- [Complete list of literature reviewed and evaluated for the revision of the *Scope of Nurse Anesthesia Practice* \(2013\)](#)
- [Exploring a Common Practice Question: CRNAs Asked to Practice as RNs, *AANA NewsBulletin*, p. 27](#) (login required)
- [AANA Scope of Practice membership survey](#) (login required)
- [AANA State Government Affairs Division webpage](#)
- [List of state nurse anesthetist associations](#)

Other Resources

- State Board of Nursing
- State Nurse Practice Act
- Facility Policies, Procedures, Bylaws and Privileges

References

1. American Nurses Association. Scope of Practice: Domains and Questions. Accessed at <http://www.nursingworld.org/EspeciallyForYou/AdvancedPracticeNurses/Scope-of-Practice-2/Scope-of-Practice/Scope-of-Practice-Domains-and-Questions.pdf>.
2. Klein, TA. Scope of Practice and the Nurse Practitioner: Regulation, Competency, Expansion, and Evolution. Accessed at <http://www.medscape.org/viewarticle/506277>.
3. Louisiana State Board of Nursing. Guidelines for Interpreting Scope of Practice for Advanced Practice Registered Nurses in Louisiana. Accessed at <http://www.lsbn.state.la.us/Portals/1/Documents/Forms/apscope.pdf>.
4. Maine State Board of Nursing. Scope of Practice Decision Tree. Accessed at <http://www.maine.gov/boardofnursing/questions/ScopeOfPracticeDecisionTree.htm>.
5. Nevada Board of Nursing. Determining Your Scope of Practice. Accessed at <http://nevadanursingboard.org/wp-content/uploads/2011/10/Scope-of-practice-decision-tree.pdf>.
6. South Carolina Board of Nursing. Scope of Practice Decision Tree. Accessed at <http://www.llr.state.sc.us/POL/Nursing/PStatements/ScopeofPracticeDecisionTreeApproved072910.pdf>.
7. Washington State Department of Health. Scope of Practice Decision Tree. Accessed at <http://www.doh.wa.gov/Portals/1/Documents/Pubs/609305.pdf>.

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Appendix D: CRNA Specialty Clinical Practice Position Statement

SOURCE: American Association of Nurse Anesthetists (2015). Website: [https://www.aana.com/docs/default-source/practice-aana-com-web-documents-\(all\)/crna-specialty-clinical-practice.pdf?sfvrsn=db0049b1_2](https://www.aana.com/docs/default-source/practice-aana-com-web-documents-(all)/crna-specialty-clinical-practice.pdf?sfvrsn=db0049b1_2)



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CRNA Specialty Clinical Practice *Position Statement*

Certified Registered Nurse Anesthetists (CRNAs) provide anesthesia, analgesia and pain management services to patients at all acuity levels across the lifespan in a variety of settings.^{1,2} During their career, CRNAs may advance specialty clinical practice expertise and competency through various pathways.

The knowledge, experience, skills, attitudes, and judgment obtained during a nurse anesthesia education program establish the foundation for all specialty clinical practice. The decision to focus one's clinical practice on a specialty area is based on considerations unique to the individual CRNA.³ State law and regulation, reimbursement policy, and facility bylaws and policy are relevant factors in decisions related to specialty practice.³ The American Association of Nurse Anesthetists (AANA) supports the CRNA's choice of the learning pathway for specialty practice. AANA does not require specialty fellowship or certification for practice or licensure.

Specialty practice development over a career may encompass continuing education courses, workshops, self-study, mentored practice, accredited fellowships, as well as other educational activities.⁴⁻⁷ Ultimately, individual specialty practice evaluation occurs in the practice setting through peer review and a continuous quality improvement program.

The CRNA, as a leader of the healthcare team, engages in lifelong learning and professional development to address the unique acute and chronic needs of each patient.^{8,9}

References

1. Scope of Nurse Anesthesia Practice. Park Ridge, IL: American Association of Nurse Anesthetists; 2013.
2. American Association of Nurse Anesthetists. Certified Registered Nurse Anesthetists Fact Sheet. <http://www.aana.com/ceandeducation/becomeacrna/Pages/Nurse-Anesthetists-at-a-Glance.aspx>. Accessed October 8, 2015.
3. Considerations for Adding New Activities to Individual CRNA Scope of Practice. Park Ridge, IL: American Association of Nurse Anesthetists; 2014.
4. Kaufman DM. Applying educational theory in practice. *BMJ*. Jan 25 2003;326(7382):213-216.
5. Parker P, Hall DT, Kram KE. Peer coaching: A relational process for accelerating career learning. *Acad Manag Learn Educ*. 2008;7(4):487-503.
6. Conlan J, Grabowski S, Smith K. Adult learning. In: Orey M, ed. *Emerging perspectives on learning, teaching, and technology*: Department of Educational Psychology and Instructional Technology, University of Georgia; 2003. <http://epltt.coe.uga.edu/>. Accessed October 8, 2015.
7. Webster-Wright A. Reframing professional development through understanding authentic professional learning. *Rev Educ Res*. 2009;79(2):702-739.
8. Code of Ethics for the Certified Registered Nurse Anesthetist. Park Ridge, IL: American Association of Nurse Anesthetists; 2005.
9. National Academy of Sciences (formerly Institute of Medicine). *The Future of Nursing: Leading Change, Advancing Health*. 2010; <http://iom.nationalacademies.org/reports/2010/the-future-of-nursing-leading-change-advancing-health.aspx>. Accessed October 8, 2015.

Appendix E: Clinical Experience Requirements for Nurse Anesthesia Educational Programs

SOURCE: COA Standards for Accreditation of Nurse Anesthesia Programs – Practice Doctorate (2017). Website: <http://home.coa.us.com/accreditation/Documents/Standards%20for%20Accreditation%20of%20Nurse%20Anesthesia%20Programs%20-%20Practice%20Doctorate,%20rev%20May%202017.pdf>

Appendix

The minimum number of clinical hours is 2,000 (*See Glossary, "Clinical hours"*).

CLINICAL EXPERIENCES	Minimum Required Cases	Preferred Number of Cases
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Patient Physical Status

Class I		
Class II		
Classes III-VI (total of a, b, c, & d)	200	300
a. Class III	50	100
b. Class IV	10	100
c. Class V	0	5
d. Class VI		
Total cases	600	700

Special Cases

Geriatric 65+ years	100	200
Pediatric		
Pediatric 2 to 12 years	30	75
Pediatric (less than 2 years)	10	25
Neonate (less than 4 weeks)		5
Trauma/emergency (E)	30	50
Obstetrical management (total of a & b)	30	40
a. Cesarean delivery	10	15
b. Analgesia for labor	10	15
Pain management encounters (<i>see Glossary, "Pain management encounters"</i>)	15	50

CLINICAL EXPERIENCES	Minimum Required Cases	Preferred Number of Cases
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Anatomical Categories⁵

Intra-abdominal	75	
Intracranial (total of a & b)	5	20
a. Open	3	10
b. Closed		
Oropharyngeal	20	
Intrathoracic (total of a, b, & c)	15	40
a. Heart		
1. Open heart cases (total of a & b)	5	10
a) With cardiopulmonary bypass		
b) Without cardiopulmonary bypass		
2. Closed heart cases		10
b. Lung	5	
c. Other		
Neck	5	10
Neuroskeletal	20	
Vascular	10	30

⁵ Count all that apply.

CLINICAL EXPERIENCES	Minimum Required Cases	Preferred Number of Cases
Methods of Anesthesia		
General anesthesia	400	
Inhalation induction	25	40
Mask management ⁶	25	35
Supraglottic airway devices (total of a & b)	35	50
a. Laryngeal mask		
b. Other		
Tracheal intubation (total of a & b)	250	
a. Oral		
b. Nasal		5
Alternative tracheal intubation/endoscopic techniques ⁷ (total of a & b) (<i>see Glossary, "Alternative tracheal intubation techniques"</i>)	25	50
a. Endoscopic techniques ⁸ (total of 1 & 2)	5	15
1. Actual tracheal tube placement		
2. Simulated tracheal tube placement		
3. Airway assessment		
b. Other techniques	5	25
Emergence from anesthesia	300	

⁶ A general anesthetic that is administered by mask, exclusive of induction.

⁷ Tracheal intubations accomplished via alternative techniques should be counted in both tracheal intubation and the alternative tracheal intubation categories.

⁸ Simple models and simulated experiences may be used to satisfy part of this requirement. No clinical experiences can be obtained by simulation alone.

CLINICAL EXPERIENCES	Minimum Required Cases	Preferred Number of Cases
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Regional techniques		
Actual administration (total of a, b, c, & d)	35	
a. Spinal (total of 1 & 2)	10	50
1. Anesthesia		
2. Pain management		
b. Epidural (total of 1 & 2)	10	50
1. Anesthesia		
2. Pain management		
c. Peripheral ⁹ (total of 1 & 2)	10	50
1. Anesthesia		
Upper		
Lower		
2. Pain management		
Upper		
Lower		
d. Other ¹⁰ (total of 1 & 2)		
1. Anesthesia		
2. Pain management		
Management (total of 1 & 2)	35	50
1. Anesthesia		
2. Pain management		
Moderate/deep sedation	25	50

⁹ Simple models and simulated experiences may be used to satisfy part of this requirement. No clinical experiences can be obtained by simulation alone.

¹⁰ Examples include truncal, cutaneous, head, and neck blocks (e.g., transversus abdominis plane, rectus sheath, ilioinguinal, iliohypogastric, oral, and maxillofacial blocks).

CLINICAL EXPERIENCES	Minimum Required Cases	Preferred Number of Cases
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Arterial Technique

Arterial puncture/catheter insertion	25	
Intra-arterial blood pressure monitoring	30	

Central Venous Catheter

Placement ¹¹ – Non-PICC (total of a & b)	10	15
a. Actual		5
b. Simulated		
Placement – PICC (total of a & b)		
a. Actual		
b. Simulated		
Monitoring	15	

Pulmonary Artery Catheter

Placement		5
Monitoring		10

Other

Ultrasound-guided techniques (total of a & b)		10
a. Regional		
b. Vascular		
Intravenous catheter placement	100	
Advanced noninvasive hemodynamic monitoring		

¹¹ Simple models and simulated experiences may be used to satisfy this requirement. For students enrolled on or after January 1, 2020, no clinical experiences can be obtained by simulation alone. Insertion of peripherally inserted central catheters (PICC) does not meet the requirements for central line placement.