

STATEMENT COMPARING ANESTHESIOLOGIST ASSISTANT AND NURSE ANESTHETIST EDUCATION AND PRACTICE

Committee of Origin: Anesthesia Care Team

(Approved by the ASA House of Delegates on October 17, 2007, and last amended on October 17, 2012)

Anesthesiologist Assistants (AA) and nurse anesthetists are both non-physician members of the Anesthesia Care Team. Their role in patient care is described in the American Society of Anesthesiologists' (ASA) Statement on the Anesthesia Care Team. The ASA document entitled Recommended Scope of Practice of Nurse Anesthetists and Anesthesiologist Assistants further details the safe limits of clinical practice. These documents state ASA's view that both AAs and anesthesia nurses have identical patient care responsibilities and technical capabilities--a view in harmony with their equivalent treatment under the Medicare Program. The proven safety of the anesthesia care team approach to anesthesia with either anesthesia nurses or AAs as the non-physician anesthetists confirms the wisdom of this view. Nevertheless, certain differences do exist between AAs and anesthesia nurses in regard to educational program prerequisites, instruction, and requirements for supervised clinical practice. Some of these differences are mischaracterized and misrepresented for the benefit of one category of provider over the other. The question that must be addressed is whether these differences in education and practice indicate superiority of one category of provider over the other in either innate ability or clinical capability.

Historical Background of Nurse Anesthetists and Anesthesiologist Assistants-

The Nurse Anesthesia discipline developed in the late 1800s and early 1900s out of surgeons' requests for more anesthesia providers since few physicians focused on anesthesia at that time. Surgeons directed the care provided by anesthesia nurses. As early as 1916 and 1917, nurse anesthetists fought their first legal battles to create and maintain the right to provide anesthesia under the direction of surgeons. Current issues related to registered nurse anesthetists' legal right to practice without the supervision of an anesthesiologist are due to their history, tradition, philosophy of education and political efforts, rather than the quality and scope of their education.

The AA profession was established in the late 1960s by anesthesiologists addressing another shortage of anesthesiologists in the country. After studying the educational pathway for anesthesiologists and nurse anesthetists, anesthesiologists created a new educational paradigm for a mid-level anesthesia practitioner emphasizing a science/pre-medical rather than nursing background in college. This person would perform the same job as the anesthesia nurses but could readily attend medical school if appropriate. This new professional, the anesthesiologist assistant, or AA, thus had the potential to alleviate the shortage of anesthesiologists. Trained specifically to share a common practice philosophy with anesthesiologists and to work only with anesthesiologists, AA education was designed to incorporate the basic principles supportive of the Anesthesia Care Team (ACT). The founders recognized early on the advantage of a strong pre-medical background in comparison to the nursing education backgrounds of the anesthesia nurse profession. The wisdom of this view has been confirmed by the increased focus on pre-medical course work as a prerequisite for admission to anesthesia nurse programs that occurred in response to the success of the AA profession. Thus by history, tradition, philosophy of education and desire, the AA is trained to work within the ACT under the supervision of an anesthesiologist alone. The quality and scope of their education has nothing to do with this decision.

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The Committee on the Anesthesia Care Team studied and compared the prerequisites for program admission and curriculum of both AA and anesthesia nurse educational programs and the clinical practice in regards to scope of practice and overall quality. Reference was made to published program prerequisites, curricula, and graduation requirements for both AA and anesthesia nurse education programs; the laws and regulations governing clinical practice; requirements for maintenance of certification and available studies on the safety of anesthesia nurses and AA practice. In addition, the Committee reviewed an impartial study comparing AA and anesthesia nurse education and practice commissioned by the Kentucky legislature and published in February 2007, as well as a white paper from the American Association of Anesthesiologists' Assistants (AAAA) entitled "Comparison of AA and NA Education and Practice." The Committee came to the following conclusions:

Differences do exist between Anesthesiologist Assistants and Registered Nurse Anesthetists in regard to the educational program prerequisites, instruction, and requirements for supervision in practice as well as maintenance of certification. These differences are a product of the different manner in which the two professions developed and the desire of Anesthesiologist Assistants to work only with anesthesiologists.

Table 1 provides itemized comparisons. This table is used with permission from AAAA and can be found at the end of this statement.

The major differences between AAs and anesthesia nurses are summarized here:

1. Prerequisites to Anesthesia Training-

Anesthesia nurse schools require a nursing degree and one year of critical care experience, while AA programs require a bachelor's degree emphasizing pre-medical, science-based coursework. The Committee agrees with the impartial findings of the study commissioned by the Kentucky legislature that the requirement for clinical experience, while it may constitute a temporary aid to those beginning their anesthesia nurse or AA education, makes no difference to the final outcome of that training. This conclusion is born out by the clinical experiences of anesthesiologists who work simultaneously with AA and anesthesia nurses and find no significant difference in clinical practice ability between the two professions.

2. Performance of Regional Anesthesia and Insertion of Invasive Catheters-

Data compiled by AAAA in its "Comparison of AA and NA education and Practice" show that more anesthesia nurse education programs provide instruction in the technical aspects of regional anesthesia, but that a higher percentage of AA programs provide instruction in the placement of invasive monitoring lines. There is no evidence to suggest that the innate abilities or clinical capabilities of the students have any bearing on their suitability for this aspect of practice. Rather, the decision by some AA programs to limit the teaching of these techniques is based on the reservations expressed by some anesthesiologists about the safety of this practice by either AAs or anesthesia nurses. That limitation is voluntary, consistent with ASA policy and done with a view to enhancing patient safety. The ASA Statement on Regional Anesthesia recognizes that the supervising anesthesiologist may, when appropriate, delegate certain technical aspects of these procedures to a non-physician anesthetist. Nevertheless, as neither anesthesia nurses nor AAs receive the medical education necessary to safely evaluate patients for the appropriateness of these procedures or manage complications when they occur, regional anesthesia is "best performed by an anesthesiologist who

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possesses the competence and skills necessary for safe and effective performance." Training in and experience using technical skills are not equivalent to a medical degree.

3. Supervision and Independent Practice-

AAs must be supervised by an anesthesiologist. The fact that anesthesiologists must supervise AAs does not constitute a mark of inferiority. On the contrary, and as noted in the Kentucky study, AAs work under the direction of anesthesiologists only because that is the history of their profession and their professional expectation.

Anesthesia nurses practice under different regulations. While most anesthesia nurses function in an anesthesia care team model (with anesthesiologist participation and supervision), some anesthesia nurses practice under the direction of the operating surgeon or other non-anesthesiologist to satisfy requirements for physician supervision of anesthesia nurses care. Finally, in some circumstances anesthesia nurses are allowed to practice independently of physician supervision as a result of decisions made by state governors to remove Medicare requirements for physician supervision of anesthesia nurses (i.e. the "Opt Out" clause). These decisions are often political and are not based upon medical evidence, educational advances in anesthesia nurses training, improvements in patient safety or evidence of anesthesia provider shortages.

4. Maintenance of Certification-

The AA certifying body, the National Commission for Certification of Anesthesiologist Assistants (NCCAA) was founded in 1989 and provides the certification process for AAs in the United States. Once certified, the AA recertification process involves 40 hours of Continuing Medical Education (CME) submitted biannually to the NCCAA and sitting for the Continued Demonstration of Qualifications (CDQ) examination addressing 16 core competencies every six years. The CDQ examination is administered by the National Board of Medical Examiners. Currently, all (i.e., 100%) AAs recertify with a written examination every 6 years and submit no less than 40 hours of CME to the NCCAA every two years.

Although anesthesia nurse practice has existed long before AA practice, at the time of this review, there is no recertification program/process nor equivalent of the Continued Demonstration of Qualifications examination in place for anesthesia nurses. The most current documents available for review related to anesthesia nurse recertification suggests that the anesthesia nurses Continued Professional Certification Program will not be in effect until January 1, 2015. At that time, anesthesia nurses' credentials will no longer be valid for the anesthesia nurse's lifetime but for four-year cycles. In that four-year cycle, the anesthesia nurses must complete similar amounts of continuing education as the AAs but also pass the intended recertification examination in less than four tries in a four-year period. If this modification of anesthesia nurse certification progresses, all anesthesia nurses would be required to recertify by 2023.

In summary, review of the prerequisites, curriculum and clinical abilities of both AAs and anesthesia nurses supports ASA policy recognizing equivalence of these anesthesia providers.

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Table 1:

COMPARISON OF AAs AND CRNAs EDUCATION AND PRACTICE
(Used with Permission from the American Academy of Anesthesiologist Assistants)
Updated February 2011

	Anesthesiologist Assistants	CRNA
Description of Practice	Supervision by an anesthesiologist	Supervision by physician of unspecified specialty (excluding Opt-Out states)
Model of Practice	Anesthesia Care Team	Anesthesia Care Team- supervision by an anesthesiologist, or without supervision (Medicare Opt Out states)
Distribution of Providers	1800 AAs in 17 states (plus District of Columbia) and Veteran's Administration system	32,000 CRNAs in all 50 states and Veteran's Administration system
Number of Programs	7 (in 5 states)	110 (in 37 states plus D.C. and Puerto Rico)
Length of Program	24-28 months	24-36 months
Type of Program	Master's degree required (specific degree title unique to each program)	Master's degree required (specific degree title unique to each program)
Certifying Body	National Commission for Certification of Anesthesiologist Assistants National Board of Medical Examiners	Council on Certification of Nurse Anesthetists
National Organization	American Academy of Anesthesiologists Assistants (AAAA)	American Association of Nurse Anesthetists (AANA)

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Admission Requirements	<p>BS Degree</p> <p>Premedical curriculum required (two semesters of biology with laboratory; two semesters of vertebrate anatomy and physiology (or other advanced biology) with laboratory, two semesters of general chemistry or biochemistry with laboratory, two semesters of general physics with laboratory, two semesters of advanced college mathematics including calculus)</p> <p>GPA > 3.0</p> <p>Completion of Medical College Admissions Test (MCAT) or Graduate Record Exam (GRE), dependent on each program's individual requirements</p> <p>Previous health care experience preferable</p> <p>Personal interview</p>	<p>BN Degree</p> <p>Science curriculum for general practice nursing (courses vary greatly depending on the program)</p> <p>GPA 3.0</p> <p>Licensure as a registered nurse</p> <p>Minimum 1 year of nursing experience in acute care setting</p> <p>Personal interview</p>
Program Requirements	<p>Academic faculty with medical school appointments</p> <p>Medical Director is a board-certified anesthesiologist</p> <p>Programs located in academic facilities that meet anesthesia residency requirements for physicians</p>	<p>Faculty include MDs, CRNAs, and graduate nurses</p> <p>Program Director must possess a Master's degree</p>
Program Accreditation	<p>Commission for Accreditation of Allied Health Education Programs (CAAHEP)</p> <p>Accreditation Review Committee for Anesthesiologist Assistants (ARC-AA)</p>	<p>Council on Accreditation of Nurse Anesthesia Programs</p>
Didactic Education (Classroom)	<p>56-132 classroom hours (depending on program)</p>	<p>34-80 classroom hours (depending on program)</p>

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Clinical Education	Minimum of 600 cases and 2000 clinical hours (average ~2500+ hours)	Minimum of 550 cases (average ~1000+ hours)
Clinical Rotations	All sub-specialties of anesthesia	All sub-specialties of anesthesia
Advanced Skills	Regional anesthesia and invasive line placement	Regional anesthesia and invasive line placement
Clinical Instructors	AAs, CRNAs, Anesthesiologists, Anesthesiology Residents in training.	CRNAs and Anesthesiologists
Recertification	40 hours CMEs submitted biannually + sit for Continued Demonstration of Qualifications Exam (CDQ) every six years administered by the National Board of Medical Examiners	40 hours CEUs submitted biannually (no recertification by exam)
Graduation Requirements	3.0 GPA or better and in good class standing All course semester and clinical requirements completed	All course semester and clinical requirements completed