GUEST EDITORIAL

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Recertifying the Professional Nurse Anesthetist: A Call for National Dialogue

In 2011 the National Board of Certification and Recertification for Nurse Anesthetists initiated a Continued Professional Certification program that strongly suggests the search for alternatives. This article presents a thoughtful critique of the proposed professional competency program as well as alternatives that could be considered in a revision of the current program.

Competence is vitally important to nurse anesthetists and a requisite attribute for their clinical practice and ongoing professional stature because of the critical nature of the work they perform. When something goes wrong in anesthesia, it often goes very wrong with tragic results. Nurse anesthetists must be able to assure their patients, their coworkers, regulatory and licensing bodies, and themselves that they are properly prepared and competent to carry out these responsibilities and that they remain so over a career that may span many decades.

In the healthcare culture, academic achievement often is substituted for competence. The American Association of Nurse Anesthetists (AANA), the professional association representing the nation’s nurse anesthetists, was primarily conceived for the purpose of, and dedicated to, improving the education of nurse anesthetists. Many of the association’s past presidents have been academicians, and many practitioners who are not full-time academicians do a large amount of teaching while mentoring student registered nurse anesthetists.

When called on to defend the profession, its spokespersons frequently refer to the educational requirements and the comprehensive certification test that must be passed before entering. So crucial is this examination that the very title of “Certified Registered Nurse Anesthetist” (CRNA) draws its name from it. As important as education is to nurse anesthetists, entry-level competence may owe as much to the mandatory critical care experience required of applicants to nurse anesthesia school and the administration of hundreds of anesthetics under the care of senior nurse anesthetist mentors as it does to rigorous academic standards. Ongoing clinical experience, self-directed learning, and specialization contribute to competent practice, as do essential personal attributes such as organizational skills, commitment, and vigilance.

Maintenance of competence over a lengthy career span is a complex issue, and assessment of that competence is even more complicated and highly controversial. Advances in basic sciences underlying clinical practice, the massive expansion of the pharmacopeia, and advanced technology for monitoring patients make continuing education (CE) and learning essential. As well, the various new surgical technologies, each with specific anesthetic requirements, career redirection, and specialization of anesthetic practice makes assurance of competence a more difficult task. However, the interplay of these elements with the essential personal attributes, such as vigilance, makes it unlikely that academic testing will come close to assuring competence or promoting patient safety.

Anesthesia catastrophes relate more to the failure to do what one is educated to do, than a lack of knowledge in the first place. A number of studies suggest that human error, rather than a gap in cognitive knowledge, is the primary contributor to anesthetic calamities.1–5 Cooper and colleagues6,7...
found that clinician errors, such as breathing circuit disconnects, drug-syringe swaps, and gas-flow control errors, constitute most reported incidents. This point is of crucial importance to nurse anesthetists because it explains why anesthesia administered by nurse anesthetists can compare favorably to anesthesia delivered by anesthesiologists despite the fact that, in general, anesthesiologists are in school longer than are nurse anesthetists.

A recertification process that seeks to emphasize only academic preparation will neither strengthen the public’s acceptance of nurse anesthesia nor improve today’s already high quality of anesthesia care. What follows is a discussion and three evidence-based opinions (summarized in Table 1) that the authors hope will initiate a broad-based examination of a system that will ensure initial and ongoing competence, and will be widely accepted and therefore followed. The three CRNA authors are themselves representative of the breadth of the profession; an administrator, an academician, and a practitioner.

Problems With the Continued Professional Certification Proposal

The National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA) has proposed the Continued Professional Certification (CPC) program, which has a number of deficiencies that strongly suggest the search for alternatives.

CRNAs are highly educated anesthesia professionals who provide the full range of anesthesia and pain management services. Their acknowledged proficiency earns them a substantial degree of autonomy. Thus, CRNAs enjoy a professionally rich practice requiring clinical judgment and minute-to-minute decision making.

To become a CRNA, professional certification, the broadly accepted standard of competency, follows graduation from an accredited nurse anesthesia program and successful passing of the National Certification Examination. After entering practice, the members of the profession determine the scope and standard of their practice and continuing competency. The professional representative, the American Association of Nurse Anesthetists (AANA) with a membership of more than 90% of its practitioners, provides an authoritative voice regarding the accepted standards.

The AANA Code of Ethics sets forth the professional obligations of nurse anesthetists. Specifically stated, “The scope of practice engaged in by the CRNA is within the individual competence of the CRNA. Each CRNA has the responsibility to maintain competency in practice.” Recognizing that medical knowledge, technology, and techniques will continue to evolve, the Code of Ethics anticipates that future advances will be incorporated into scope of practice. The code rightly states that the individual CRNA is best equipped to identify and therefore resolve gaps in knowledge. CRNAs are obligated to remain competent in their scope of practice. This is accomplished through lifelong learning, continuous quality improvement activities, state licensure, and advanced practice requirements and recertification as a CRNA.

By which criteria can lifelong learning and recertification be evaluated? Credentialing mechanisms are said to exist to protect and benefit the public. Yet, there are no data to support the premise that activities such as a mandatory recertification examination or a required “one-size-fits-all” study module will increase patient safety or reduce morbidity and mortality. Forward facing, how will the efficacy of these approaches be measured to determine impact on patient safety and healthcare cost? The lack of outcomes-based scientific support for these approaches raises important questions regarding their ultimate value as requirements and, what may be worse, cuts off debate and prematurely ends the search for more effective approaches to accomplish these goals.

While we await sufficient supporting evidence, approaches to continuing certification may be evaluated using generally accepted business principles. These include efficiency, effectiveness, evidence basis, and stakeholder engagement.

Stakeholder Engagement

A robust stakeholder engagement plan is essential, as a measure of good faith, to promote sustainable change. Data indicate a large gap in stakeholder support for the CPC program. In August 2013, the AANA members, frustrated by the lack of opportunities for input to the NBCRNA on this issue, voted to change the AANA bylaws to substitute “any entity” for “NBCRNA” in reference to certification and recertification. A poll conducted in June 2014 (n = 2,230), found that 81% of CRNAs responded “no” when asked if they were given the opportunity to have input into the new CPC program (P. Hilliard, written communication, June 2014). In September 2014, the AANA members passed a resolution by supermajority with a vote of no confidence for the NBCRNA Board of Directors and executive staff. The resolution called for a moratorium of the CPC program until evidence could be presented by the AANA CE Committee that current requirements for recertification no longer meet the needs of the profession.

Active opposition to untested recertification mandates is not unique to CRNAs. In April 2013, the Association of American Physicians and Surgeons filed a lawsuit against the American Board of Medical Specialties with charges of conspiracy and restraint of trade relative to the Maintenance of Certification (MOC) in Anesthesiology program. In June
<table>
<thead>
<tr>
<th>Current</th>
<th>Continued Professional Certification (CPC)</th>
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<td>Credits</td>
<td>40 credits (20/y)</td>
<td>60 Class A&lt;sup&gt;a&lt;/sup&gt; assessed&lt;sup&gt;b&lt;/sup&gt; credits (15/y) and 40 Class B professional development credits&lt;sup&gt;c&lt;/sup&gt; (10/y)</td>
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<td>200 assessed&lt;sup&gt;b&lt;/sup&gt; credits (20/y) including One case study related to patient safety</td>
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<td>Core modules</td>
<td>Mandatory 4 modules every 4 years and Mandatory test of each module and One module must be completed in each of 4 core areas: - Airway management technique - Applied clinical pharmacology - Human physiology and pathophysiology - Anesthesia equipment and technology</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
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<td>Testing</td>
<td>Mandatory examination every 8 years Method: Online Content: - Airway management (28%) - Applied clinical pharmacology (28%) - Physiology and pathophysiology (28%) - Anesthesia equipment and technology (16%)</td>
<td>See footnote b.</td>
<td>Mandatory practice-based assessment every 10 years Method: Screen based or full-body simulation</td>
<td>Mandatory exam every 10 years or completion of 1,500 hours/y of clinical practice as a CRNA and 25 credits/y from the core areas</td>
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Table 1. Recertification Options for Certified Registered Nurse Anesthetists

Abbreviation: NA, not applicable.

<sup>a</sup>Class A credits can be earned in assessed educational activities, such as attending state and national meetings, departmental in-services, simulation training, hands-on workshops, or online learning courses.

<sup>b</sup>Assessed credits include some form of testing of the participant related to the educational activity. The educational activity may take place in any learning environment. The assessment can take place during or after the learning experience. Examples include multiple-choice questions, open-book test, online quiz, simulation demonstrations, case studies, or self-assessment.

<sup>c</sup>Class B credit is defined as any activity that results in the enhancement of the anesthetist’s foundational knowledge of nurse anesthesia practice, supports patient safety, or fosters the nurse anesthetist’s understanding of the broader healthcare environment. The goal is to promote professional development while incorporating flexibility and opportunity for education through these activities.
2014, the MOC in Anesthesiology program came under heavy fire for lack of evidence and restrictions on educational freedom.17 In December 2014, two articles18,19 published in *JAMA* showed no difference in patient outcomes between physicians complying with MOC requirements and those doctors who were not required to participate. The accompanying editorial20 posed the question “Does MOC consume so much time, resources, and emotional energy that these processes should be dismantled?”

Participation in the decision-making process by those who are affected by a decision can prevent such opposition. CRNAs have a duty to participate actively in improving recertification requirements. According to the International Association for Public Participation,21 stakeholder participation “promotes sustainable decisions by providing participants with the information they need to be involved in a meaningful way, and it communicates to participants how their input affects the decision.” The association’s conceptual framework for public decision making has been used internationally as a tool to ensure meaningful input from key stakeholders in health policy decision making. Touch points for stakeholders include development consultation, peer review, feasibility testing, building awareness, and promoting the uptake of a new process. Stakeholder participation might involve open meetings, surveys, open houses, workshops, polling, CRNA advisory committees, and other forms of direct involvement.

In contrast, development of the NBCRNA CPC program was marked by secrecy and confidentiality agreements, erupting into the consciousness of the nation’s CRNAs when it was announced in a tightly scripted, high-cost video at the 2011 AANA Annual Congress. Since that time, both the AANA and the NBCRNA have invested more than $1 million and many hours attempting to play catch-up in winning the hearts and minds of nurse anesthetists across the country. At this point, a moratorium on the CPC program and proper engagement of stakeholders to determine options for moving forward will create a solid foundation for widespread adoption of new recertification requirements.

### An Administrator’s Perspective

A Continuous Professional Development (CPD) program is proposed as the first option for consideration. Avoidance of the term *competence* in the title is intentional, in recognition that even the most effective educational methods and broad-based programs do not guarantee or measure clinical competence. In addition to the educational component, the assurance of competence also requires the assessment at point of care through privileging mechanisms, peer review, performance appraisals, and other modalities. As professionals, CRNAs can, and must, continually develop their knowledge and skills for an evolving scope of practice. The proposed CPD program includes:

1. A 10-year recertification cycle
2. Twenty-five credits per year
3. All credits assessed.

The CPD program recognizes adult learning principles by maximum flexibility for CRNAs to establish and achieve their learning goals. Although the NBCRNA CPC program is not easily understood, the CPD program promotes efficiency and effectiveness through simplification and flexibility. The CPD program simplifies the recertification process by establishing a 10-year, rather than a 4-year, recertification cycle similar to that of other highly skilled professionals such as surgeons22 and anesthesiologists.23 The program is further streamlined by having one category of credits rather than the two categories described in the CPC program. The CPD program eliminates the mandatory examination and modules, although CRNAs may choose to use them to meet the credit requirements for recertification.

### Efficient and Effective

In today’s challenging healthcare environment, hospital executives, policy decision makers and independent practitioners seek low cost, high-value approaches to solving problems. The recertification process should be a simple, easy to understand process, with convenient access at minimal cost. There is some evidence that program simplicity may be effective in achieving widespread acceptance of change. Business authors Chip and Dan Heath24 propose that when a solution is complex, change is difficult. In other words, clarity helps dissolve resistance.

Data indicate that the NBCRNA proposed CPC program is not easily understood. CRNA polls conducted in early 2014 (n = 2,781) found that 88.67% of CRNAs answered “no” when asked if they felt well informed about the expectations and requirements of the CPC program (M. Fallacaro and P. Hilliard, written communication, June 2014).

Evidence shows that CRNAs are already highly competent, even with current standards for certification and recertification. Despite increasing patient baseline risk, anesthesia mortality has declined significantly over the past 50 years, decreasing from 357 per million population before the 1970s to 34 per million in the 1990s to 2000s (P < .00001).25 An unpublished review of the State of Michigan Bureau of Health Care Services report on actions taken against CRNA licenses in 2013 finds only two license actions for issues related to competency of 4,201 Michigan CRNAs, and both actions involved medication errors (C. Zambricki, written communication, August 2014). In the rare occurrence
where incompetence is alleged, there is no evidence that didactic approaches, such as required modules or mandatory examinations, are accurate or sensitive indicators for identifying the alleged incompetence or preventing its occurrence.

Regarding public or outside perception, threats to CRNA practice focus on comparisons of initial education and training with those of physicians rather than contrasting recertification requirements. Health policy decision makers, hospital executives, and patients are more interested in the perceived difference between a doctor and an advanced practice nurse rather than criteria for recertification. Facts do little to temper these perceptions. For example, all CRNAs are board certified, whereas less than 75% of anesthesiologists have board certification.26 Moreover, Medicare requires that nurse anesthetists be certified in the specialty for payment, whereas no formal training in anesthesia is required for an anesthesiologist to be reimbursed. Anesthesiologists need only be licensed as a physician in any state to be paid by Medicare for anesthesia services. The nuances of certification and recertification are unlikely to be understood by the public, let alone change perceptions about the safety of anesthesia providers. This strongly suggests that a recertification program that cannot show it actually improves patient care has little value in the public eye.

- Evidence-Based. Nurse anesthetists’ career paths differ widely, varying by specialization and practice settings. Therefore, a common postgraduate curriculum is of questionable value for the experienced practitioner. Competence is multifaceted and inherently difficult to measure through traditional tools such as testing and attendance at continuing education courses. This difficulty has been noted in general nursing as well.27

The design of the CPD program is consistent with self-directed and practice-based learning. Aligned with the Institute of Medicine report Redesigning Continuing Education in the Health Professions,28 the CPD program encourages identification of personal knowledge gaps and the selection of programs to address them, rather than a “one-size-fits-all.” The CPD program recognizes the ethical responsibility of CRNAs for professional learning to take place over a career and stretching beyond the classroom to the clinical setting.

The CPD approach relies on known principles of adult learning. The pioneering work of Malcolm Knowles29 in adult education is particularly relevant (Table 2). The CPD program enables CRNAs to design their own curriculum accessing a wide array of offerings in a manner that is both goal oriented and relevant to practice. Standardized modules and examinations could be additional choices for obtaining credits.

An Educator’s Perspective
The late Ira P. Gunn, CRNA, MLN, nurse anesthesia leader and educator, is acknowledged as the architect of the nurse anesthesia councils on accreditation, certification, and recertification.30 Her visionary structure allowing the specialty to determine its own destiny, has resulted in one of the most admired approaches to credentialing in the nursing profession. Professor Gunn held that a strong collaboration among three key elements: accreditation, professional association, and certification/recertification is intrinsically linked to patient safety and thus in the best interest of the public.30 The resulting collaborative framework preserved the autonomy and independence of accreditation and certification/recertification functions while maintaining communication and transparency in the profession. For 40 years, CRNA practice has validated this model and the specialty is among the nation’s top performers in patient safety. In no way does this imply that the recertification process cannot or should not improve.

The ultimate goal, patient safety, is a shared responsibility among accreditation bodies, professional associations, certification entities, state licensing boards, institutional credentialing boards, academic institutions, and healthcare professionals. Although a certification examination is accepted as a valid indicator of entry-level competence in many professional fields, there is no consensus on a method that ensures continuing competence of professional practitioners. Alternative approaches to a recertification examination may include peer review, case studies, self-assessment, simulation, and targeted continuing education with outcomes assessment.

Professionals such as CRNAs should seek advanced knowledge and skills relative to their individual practice needs to sustain and enhance their outcomes. Roles in CRNA practice include clinicians, administrators, educators, policymakers, and, in some cases, entrepreneurs, necessitating differing continuing education options and methods to ensure “practice” competency. Although a national certifying examination may be well suited for establishing entry into practice, practitioners over time may define and specialize their practices, requiring an individualized approach to continuing competence for meaningful learning.

There is evidence that simulation is an effective tool to identify and analyze anesthetic opera-

Table 2. Malcolm Knowles: Six Principles of Adult Learning

- Adults are internally motivated and self-directed.
- Adults bring life experiences and knowledge to learning experiences.
- Adults are goal-oriented.
- Adults are relevancy oriented.
- Adults are practical.
- Adult learners like to be respected.
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delivery accomplished by CRNAs have undoubtedly played a part in
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Our programs have been revised
been a leader in promoting lifelong
Since the late 1960s, the AANA has
86% of unplanned incidents, with
comprehensive simulation environ-
tor errors with impressively high
in anesthesia. This has led to a stream of articles and studies con-
increasing safety of anesthesia firming the decreasing morbidity and
The proposed SBM includes:
1. A 10-year recertification cycle
2. Twenty credits per year, including one case study emphasizing patient safety
3. Mandatory practice assessment, either screen-based or full-body simulation.

A Practitioner’s Perspective

Since the late 1960s, the AANA has been a leader in promoting lifelong learning via continuing education. Our programs have been revised and updated during this period and have undoubtedly played a part in the unparalleled safety in anesthesia delivery accomplished by CRNAs and noted in multiple studies appearing in peer-reviewed articles. As recently as late October 2014, the stream of articles and studies confirming the decreasing morbidity and the increasing safety of anesthesia continues.

Patient safety is promoted by the AANA Standards and Scope of Nurse Anesthesia Practice documents. Safety and continued competence is evaluated at the point of anesthesia service delivery by facilities via credentialing, outcomes data, and peer review and by state licensing boards through the professional licensing process. More informally, it is validated by the success of the CRNA’s last anesthetic or by peer review through requests of colleagues and coworkers to provide anesthesia for them or loved ones.

In the 1970s, Malcolm Knowles identified the six principles of adult learning (see Table 2). These principles aptly describe experienced CRNA clinicians with respect to meeting the goals of CE and lifelong learning. The December 2009 Report “Redesigning Continuing Education in the Health Professions,” cites several deficiencies in current CE processes, yet never mentions the word competency. The report strongly advocates for a system that identifies effective educational methods, uses a team-based approach, and “engage(s) effectively in a process of lifelong learning aimed squarely at improving patient care and population health.”

As CRNAs mature and evolve as experienced clinicians, many choose to specialize in an area of expertise. Anesthesia knowledge and techniques required for various specialties and settings are unique. CRNAs need the freedom and flexibility to engage in continuing education that informs their personal practices, thus enhancing care and patient safety. Kempen says it best when he writes, “It is appropriate for every individual [practitioner] to freely choose adult self-education of value to his/her professional needs. Board certified is past tense. Certify once and pursue cost-effective lifelong learning in the library, on the Internet, in Hawaii, or as best meets your needs. Intelligent practitioners] must remain competent without corporate/government oversight to survive.” Although an examination for initial certification and entry to practice has validity, evidence is mixed, as examinations pertain to recertification or assessing competency in practice. The literature suggests that any single tool may be inadequate, especially when so few studies exist that prove a clear link between any one method and improved quality of professional service and improved outcomes for consumers. And even as evidence is collected, it may prove that multiple tools continue to be needed to address continuing competence for professionals on different paths of specialization and at different states in their careers.

Recertification testing for nurse anesthetists is a high-stakes enterprise because failure to be recertified leads to an inability to practice. Consequently, it is important that recertification testing actually be related to patient outcomes. The risk of a false-positive failure is unfair to the individual and is unfair to society by eliminating a competent practitioner from the workforce and needlessly wasting a rather heavy investment by the individual and society. Other advanced practice nursing groups, most notably the American Academy of Nurse Practitioners, offer flexible programs that are well respected and meet the needs of patients, practitioners, regulators, and legislators.

The opportunity for innovation and discovery in the recertification field is great. Advanced simulation programs to assess patient care ramifications of continuing education should be perfected to create valid and appropriate learning directly via high-definition simulation. Recertification paradigms to incentivize new learning modalities should be developed via granting of higher value credits as a means of testing validity and appropriateness of activities such as those described as core modules.

At present, and until further study is done to validate the impact of various approaches on patient quality and safety, a Practice-Based Model offers the highest value to a practitioner.

The proposed Practice-Based Model includes the following:
1. A 10-year recertification cycle
2. Twenty-five credits per year with one hour required in each of the core knowledge areas.

3. Mandatory recertification testing every 10 years or completion of 1,500 h/y of clinical practice and 25 credits from the core knowledge areas.

Conclusion

We have attempted to present a thoughtful critique of the proposed CPC program and alternatives that could be considered in a revision of the current program. The administrator suggests a CPD program; the educator, a Simulation-Based Model; and the practitioner, a Practice-Based Model.

We are not so arrogant as to suggest that the only solution lies in these pages. Rather, we hope to convey that alternatives exist, that one or more may be more attractive than the current program or its proposed replacement, and that crucial to the success of any alternative to the current system is the need to involve the CRNA community in a broad-based conversation. Our goal is only to start that conversation.

REFERENCES


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DISCLOSURE
As part of his responsibilities as professor and chair of the Department of Nurse Anesthesia at Virginia Commonwealth University (VCU), Michael Fallacaro, CRNA, DNS, directs Nurse Anesthesiology Faculty Associates (NAFA), which is a continuing education outreach program of VCU. NAFA is owned and operated by VCU. Dr Fallacaro is a full-time employee of the Commonwealth of Virginia. For administratively managing this component of the department, he receives a stipend accounting for 5% of his total salary. The remainder of funds generated through NAFA continuing education offerings goes to the department and ultimately VCU to support operations.

ACKNOWLEDGMENT
The authors wish to acknowledge the past presidents of the AANA for their leadership and steadfast commitment to the principles of the profession of nurse anesthesia.