

The Role of Certified Registered Nurse Anesthetists and the Need for New Models of Care

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In 1860, Florence Nightingale constructed the earliest nursing model of care based on the top-down theory of medical direction. It was inspired by the military's chain of command, with physician-as-general and nurses receiving direct orders regarding patient care. This model no longer applies to the provision of nursing care. As the nursing profession evolves to address the needs of a changing world, new models of care must be developed. This issue of *Clinical Scholars Review* examines the role of certified registered nurse anesthetists (CRNAs) as advanced practice nurses (APNs) and the need for a new model of care.

Drs. Izlar and Ardizzone discuss how the role is still impeded by restricted federal regulations. For example, although Medicare allows CRNAs to deliver anesthesia unsupervised by a physician, it also allows states an opt out that requires physician oversight at an increased cost but unclear benefit. A new federal law, which went into effect January 1, 2014, prevents discrimination based on licensure, but how difficult will this be to implement in real practice situations? Dr. Izlar discusses the potential impact of a \$200-million federal grant to fund a pilot

program to increase nursing education. Dr. Ardizzone discusses the current, state-specific statutes an APN must navigate in New York and calls for members of the profession to become politically active in establishing their professional rights. Dr. Massie presents the new model of horizontal integration proposed by the Patient Protection and Affordable Care Act, which aims to deliver better health care to more Americans at a more affordable cost.

Data from the Institute of Medicine has already validated a change in our health care delivery system by APNs, yet current cultural, social, intellectual, and economical forces still resist this change. Emergent practices in various medical specialties will force the hand of change for physicians and nurses alike. How will the new anesthesia model balance the roles and associated costs of CRNAs and traditional anesthesiologists against the cultural backdrop of old biases and a burgeoning demand for care? The phrase "tipping point" concisely describes where the APN stands today as the health care system updates their models for delivering patient care.

The Tipping Point in Health Care: Using the Full Scope of Practice of Certified Registered Nurse Anesthetists as Advanced Practice Registered Nurses

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Malcolm Gladwell (2002) described the tipping point phenomenon as “the moment of critical mass, the threshold, the boiling point” (p. 12). That moment has arrived in the health care system. The idea seems so simple: Use certified registered nurse anesthetists (CRNAs) and other advanced practice registered nurses (APRNs) to their full scope of practice to provide high-quality, cost-effective care with increased access for patients that will be necessary with the implementation of the Affordable Care Act. The Institute of Medicine (IOM) report in 2010 justifies just that. The report recommends, “APRNs should be able to practice to the full extent of their education and training,” (IOM, 2010, para. 2) but nothing is ever that simple. Let’s look at the evidence of anesthesia delivery models, some of the challenges and barriers, and then explore some possible solutions.

Three mainstays of efficient and safe delivery of health care in the United States are the quality, access, and cost-effectiveness of its delivery. Many studies in anesthesia literature, both classic and contemporary, examine the relationship between anesthesia providers and quality of care outcomes. According to a 1999 IOM report, anesthesia care is nearly 50 times safer than it was in the early 1980s. Numerous outcome studies show that CRNAs and anesthesiologists administer anesthesia with equal outcomes for all types of surgical procedures from the simplest to the most complex, either as single providers or part of a team (Dulisse & Cromwell, 2010; Needleman & Minnick, 2008; Pine, Holt, & Lou,

2003; Simonson, Ahern, & Hendryx, 2007). A recent landmark study found that CRNAs as the sole anesthesia provider are the most cost-effective model, by 25% compared to other models, for the delivery of anesthesia care and that there is no statistically significant difference in the quality of care administered by CRNAs alone (Hogan, Seifert, Moore, & Simonson, 2010).

There are several challenges that the CRNA must overcome based on the current state of misinformation and regulatory forces in the health care system. The first is the public perception of our role in the delivery of anesthesia services. There is currently a perception that it is safer to have an anesthesiologist involved in the patient’s anesthetic rather than a CRNA alone. The high-quality care provided by anesthesiologists either alone or as part of an anesthesia care team is not debated. But the aforementioned studies have shown that anesthetic care provided by CRNAs is safe and the medical direction model of CRNAs (one anesthesiologist “directing” the care of up to four CRNAs) is unnecessary regarding quality of care. Manpower and workforce issues and the cost-effective provision of anesthesia services would be enhanced if CRNAs were not relegated into the medical direction model. Misinformation has been promulgated to the public that most states require some level of physician involvement in the delivery of anesthesia care. In fact, the truth is that 40 states do not require physician supervision of CRNAs in nursing or medical board statutes or regulations. Forty-nine

states do not require any anesthesiologist participation in cases provided by CRNAs. Seventeen states have opted out from the Medicare requirement for physician supervision of CRNAs and Medicare does not require anesthesiologist involvement in CRNA-only cases.

One regulatory barrier that has been overcome is the recent final ruling by the Centers for Medicare and Medicaid Services (CMS). This ruling allows CRNAs to be paid by Medicare for the provision of all services that are permitted by state law. The language from the CMS ruling is “Anesthesia and related care includes medical and surgical services that are related to anesthesia and that a CRNA is legally authorized to perform by the state in which services are furnished” (CMS, 2013, p. 69006). One of the hotly contested areas was in the reimbursement and provision of chronic pain management services, potentially increasing access to care to these services.

Market forces are currently driving the cost-effectiveness part of the equation. Millions of previously uninsured Americans will be entering the health care market with the implementation of the Affordable Care Act. If one group of anesthesia providers can deliver the same high quality of care at a more cost-effective rate while increasing access to services, why wouldn't the health care system use these providers?

Recommendations for improving anesthesia services in this country start with reorganizing the structure of delivery (Dower, Moore, & Langelier, 2013; Elwood, 2013; Ricketts & Fraher, 2013). Instead of the current vertical integration with physicians positioned at the top, we need to look at restructuring our anesthesia services in a horizontal integrative strategy. Recognizing that CRNAs as APRNs are educated and trained to provide anesthesia services for all cases and patient populations, which are complementary to anesthesiologists, anesthesia care should evolve into an advanced collaborative model with the termination of the inefficient medical direction model. Either a medical supervision model (one anesthesiologist functioning as a perioperative consultant to an unlimited number of CRNAs) or CRNA-only model would improve access to care by using all providers at their highest level while decreasing the costly and duplicative requirements of the medical direction model. We currently have this arcane model of medical direction that even the anesthesiologists have found not sustainable. In an article published in the journal *Anesthesiology* in 2012, the authors found major issues not only with compli-

ance with the regulations imposed by this model but also with a proliferation of delayed case starts because of its existence (Epstein & Dexter, 2012). If we simply eliminated it and used the medical supervision or CRNA-only model, these issues would be nonexistent and anesthesia services would be delivered more efficiently.

Second, all APRNs need to be recognized as licensed independent providers. In reality, that is how most APRNs are working at this time. Currently, AARP and other national associations and legislators have offered letters of support on this issue. As a foundational aspect of functioning to the full scope of our practice, it is imperative that we work in an interprofessional framework. Collaboration has always been a cornerstone of nursing and health care practice and that is what provides the best patient outcomes.

The previous two recommendations can only come to fruition with the restructuring of regulatory and policy barriers enacted by history and traditional, physician-led model of health care. All APRNs must not only be actively involved with their boards of nursing, because many barriers are at the state level, but also produce evidence that can support our assertions that care delivered by APRNs is equal to our physician counterparts in many realms. Only then can we effectively provide that tipping point that the American health care system so desperately needs.

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Health Care Challenges to the Certified Registered Nurse Anesthetist as an Advanced Practice Registered Nurse

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Advanced practice registered nurses (APRNs) will be a key to the success of the 2010 Patient Protection and Affordable Care Act (PPACA). The pillars of the PPACA are expanding access to quality, cost-effective care for citizens. APRNs are the ideal health care providers to deliver the required services for one of the most significant and profound expansions of the health care system.

Nurse anesthetists have been administering anesthesia for over 150 years and today safely administer more than 34 million anesthetics to patients each year in the United States (American Association of Nurse Anesthetists [AANA], 2013). Moreover, of all APRN specialties, including nurse practitioners, certified nurse midwives, clinical nurse specialists, and certified registered nurse anesthetists (CRNAs), CRNAs have historically experienced the most vigorous resistance to their right to practice to the full scope of their education, training, and experience. The challenges started in 1912 when Dr. George Crile, founder of the Cleveland Clinic, was the target of a petition by Ohio physicians through both the Ohio State Medical Board and Attorney General. He and Lakeside Hospital were threatened with the withdrawal of hospital funding and physician payment because he supported the education and use of nurse anesthetists. Following a multiyear legal battle, Dr. Crile was eventually victorious (Bankert, 1989). Fortunately, nurses providing anesthesia care and their physician supporters were successful against other early legislative and regulatory

challenges, making nurse anesthesia (the specialty) a vital component of the health care system today.

Although a vital component of the health care market, many challenges exist for the profession of nurse anesthesia. Nurse anesthesia educational programs often have the same clinical rotations as physician anesthesia training programs. These anesthesiologist-managed facilities, at times, give preferential experiences to anesthesia medical residences rather than student nurse anesthetists, especially with high-acuity cases requiring invasive line placement or regional anesthesia. This forces nurse anesthesia program administrators to rotate students to multiple sites, sometimes at significant geographical distances, so students may obtain requisite experiences.

There are also financial incentives for hospitals to educate physicians. Noting the financial disparity for nursing education, the AANA worked with many nursing organizations to promote APRN workforce development through Health Resources and Services Administration Title VIII program reauthorization and the development of a graduate nurse education (GNE) pilot project in the PPACA. GNE is a revenue source devoted to APRNs' clinical education. Five pilot hospitals were selected for this \$200-million program over a 4-year period that started in 2012, with a goal to increase the number of APRN enrollment (American Association of Colleges of Nursing, 2012). Pilot hospitals must partner with one or more schools of nursing. Three

of the five nursing school partners house nurse anesthesia programs.

Despite outcome data supporting the safe and cost-effectiveness of anesthesia care by nurse anesthetists, many state statutes do not allow nurse anesthetists to practice to the full extent of their education and training (Hogan, Seifert, Moore, & Simonson, 2010). Organized medicine has been relentless in its efforts to restrict APRN practice rights. In recent years, CRNAs have specifically been challenged on prescriptive authority, supervision, scope of practice, and pain management.

Receiving reasonable reimbursement for CRNA services poses an additional challenge for nurse anesthetists. In 1986, Congress granted direct reimbursement rights under the Medicare program to CRNAs, making nurse anesthesia the first nursing specialty to receive this designation. Nonetheless, obstacles still exist for CRNAs because of a physician supervision requirement for reimbursement of Medicare Part A (facility fees) unless a state governor opts out of the requirement. Facilities should have the flexibility to choose practice arrangements that best meet their needs without enduring a political battle that has nothing to do with patient safety and could limit access to care. Unfortunately, the PPACA does not address this issue (Dulisse & Cromwell, 2010).

Provider nondiscrimination provisions that promote patient safety, competition, and choice in health care were, fortunately, included in health care reform legislation. The federal provider nondiscrimination law effective January 1, 2014, prohibits health plans from discriminating against entire classes of qualified licensed health care professionals, such as CRNAs, solely on the basis of their licensure (AANA, 2010). APRNs advocated for this critical provision and are working to protect it during implementation.

The Centers for Medicare and Medicaid Services ruled in November 2012 that Medicare administrators should reimburse CRNAs for chronic pain management services within the CRNA scope of practice for the state in which the services are rendered (AANA, 2012). This was a victory for CRNAs by aligning Medicare reimbursement to states' scope of practice, besides ensuring patient access to pain care.

Although certain advances have been made, other issues affecting CRNA practice are not addressed in the PPACA. These include ensuring CRNAs inclusion in accountable care organizations, a voice in the Independent Payment Advisory Board, fixing the broken sustainable growth rate reimbursement formula for

Medicare Part B services, and restoring anesthesia on-call funding to rural hospitals.

Changes in the health care environment require interdisciplinary practice. The PPACA seeks to expand health coverage to 30 million or more people. Berwick, Nolan, and Whittington (2008) noted, "To accomplish this [expanded coverage], physicians might not be the sole, or even the principal providers" of care. Therefore, expanding the use of CRNAs and other APRNs' services is fundamental to successfully implementing the PPACA.

The 2010 Institute of Medicine's (IOM) report—*The Future of Nursing: Leading Change, Advancing Health*—serves as a blueprint for the future in offering quality, cost-effective care accessible to all citizens. The report points out the need to transform nursing education, practice, and leadership. Among the eight recommendations are the removal of scope-of-practice barriers, allowing APRNs to practice to the full extent of their education and training and preparing nurses to lead changes in advancing health (IOM, 2010). Because nurses form the largest segment of health care providers, we must lead policy discussions regarding the future care of patients.

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Navigating the Uncertainty That Lies Ahead: Certified Registered Nurse Anesthetists and the Patient Protection and Affordable Care Act

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The passage of the Patient Protection and Affordable Care Act (PPACA) in 2010 with subsequent ruling by the Supreme Court in 2012, which upheld that legislation, marked a watershed event for American health care. This will be a dramatic shift in the health care landscape, the likes of which have not been seen since the passage of Medicare in 1965. However, the implications and long-term impact on the health care system may not be fully appreciated at this time.

The flawed rollout of the federal health care exchange website in fall 2013, delays in some mandates, and repeated attempts to repeal the PPACA have left consumers, payers, administrators, and the health care workforce with a large degree of uncertainty. Further adding to the confusion are conflicting analyses on cost implications that have left many unanswered questions about the short- and long-term financial impact on the health care marketplace (Eibner et al., 2013; Long & Gruber, 2011; Matthews & Litow, 2013; Taubman, Allen, Wright, Baicker, & Finkelstein, 2014).

The influx of newly insured patients, some of whom will require surgical and pain management services, will certainly have an effect on the certified registered nurse anesthetist (CRNA) workforce. However, similar to other stakeholders, the full impact is unknown and may not be for several years. The short-term effects include fiscal prudence on the part of anesthesia groups/practices, hospitals, and administrators. Although there will be a purported influx of newly insured patients, the payer mix and reimbursement rates for this new group of insured citizens remains untested. Furthermore, the

actual number of newly insured participants is still uncertain. Fiscal projections may be conservative for the short term and there is reticence on the part of hospital administrators to increase budget allowances for the upcoming fiscal year. Similarly, CRNAs who own practices or bill independently are concerned about reimbursement rates and payer mixes, which may impact projected expenses, revenue, and expansions.

In the long term, if there is successful enrollment of the projected newly insured, there will likely be health care workforce constraints. The most pressing issue is the wide variety of scope of practice (SOP) impediments to CRNAs and other advanced practice registered nurses (APRNs) at federal and state levels. Organized medicine has attempted to restrict the practice of APRNs including CRNAs in virtually every state even though evidence-based recommendations from the Institute of Medicine (2010) endorse the contrary. For instance, in New York State, CRNAs have no advanced practice licensure or title recognition with the Board of Nursing. The only mention of CRNA practice is within the Department of Health hospital code. The New York State Association of Nurse Anesthetists has tirelessly introduced legislation for over 20 years to recognize CRNA practice in state statutes and regulations only to be vigorously opposed each year by the New York State Society of Anesthesiologists. Consequently, there is no title recognition at the state level for CRNAs in New York State and they are unable to receive reimbursement for services rendered to patients who are covered by state-administered Medicaid programs. With

the implementation of the PPACA and an expanding Medicaid base, this non-evidence-based SOP impediment for New York State CRNAs is an unnecessary roadblock to providing care to the millions of newly insured citizens.

CRNAs and other APRN groups' best method for navigating the uncertainty and rough waters ahead remains being well informed and well organized. In the short term, be aware of fiscal prudence on the part of administrators, employers, and payers. Continue to remain knowledgeable about the PPACA, paying particular attention to those articles that include economic and workforce analyses. Stay in contact with local, state, and federal representatives as individuals or members of professional organizations. Participate in educated discourse with colleagues, employers, and family members about the impact of the PPACA. In the long term, this change in the health care landscape is an opportunity that can propel CRNA practice. If state and federal government agencies remove impediments to APRNs' practice, part of the solution to the influx of newly insured would be a cadre of well-educated APRNs (Poghosyan, Lucero, Rauch, & Berkowitz, 2012). Safe, cost-effective, and quality health care delivered by CRNAs and other APRNs has been demonstrated in multiple studies, and it is time for legislators to increase patient access by eliminating non-evidence-based SOP barriers (Dulisse & Cromwell, 2010; Hogan, Seifert, Moore, & Simonson, 2010; Needleman & Minnick, 2008; Newhouse et al., 2011; Pine, Holt, & Lou, 2003; Simonson, Ahern, & Hendryx, 2007).

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