Foreword

If you could be a fly on the wall of an operating room, unnoticed and beyond the reach of the circulating nurse, how long would it take you to confidently say if the person at the head of the OR table is a Certified Registered Nurse Anesthetist (CRNA)?

Every one of the many CRNAs who I have interviewed (I am a history writer) says it would take “only a few minutes.” Some even say it would take “no time at all.” These leaders of our profession, many of whom are educators, believe that CRNAs exhibit unique observable traits.

Yet these same leaders struggle to describe CRNA traits. They say a CRNA keeps an orderly workspace, and may touch the patient. But these features could apply to any clinician. They leave us wondering: What really sets CRNAs apart from other clinicians? The answer to that question can be found in the history of nurse anesthesia education.

In the 1890s, anesthesia was dangerous because it was poorly administered. Alice Magaw and her colleagues at the St Mary’s Hospital in Rochester, Minnesota perfected the use of ether. Before long surgeons sent nurses to Magaw to learn safe anesthesia. Magaw and her colleagues recognized that each student gained proficiency at her own pace, and they allowed students to train for 2 or 3 months. Magaw also carefully supervised trainees before sending them home to practice alone. Magaw’s careful methods were entirely new and made anesthesia safe for the first time ever.

Subsequent nurse anesthetist educators built on Magaw’s work. Alice McGee introduced the teaching of anatomy, physiology, pharmacology, and case management in 1912 at the St Vincent’s Hospital in Portland, Oregon. In 1915, Agatha Hodgins, at the Lakeside Hospital in Cleveland, gave students a 6-month didactic curriculum and, for the first time, a variety of rotations at different hospitals. The evidence that these efforts improved anesthesia is that by 1948 they were widely accepted. Fifty-four schools of anesthesia around the country replicated the Lakeside model. And graduates of these programs provided anesthesia at more than 75% of our nation’s hospitals.

Dedication to improving education endured. Agatha Hodgins formed the American Association of Nurse Anesthetists (AANA) in 1931 specifically to improve education; Hodgins together with Helen Lamb, Gertrude Fife, and others agitated for better nationwide curriculum standards, inspection and accreditation of schools, and certification of graduates by examination. In the second half of the 20th century, new teaching methods were developed and refined, continuing education was implemented, and teacher education was developed. In the 21st century the influence of American nurse anesthetist educators expanded globally when the International Federation of Nurse Anesthetists adopted an Anesthesia Program Approval Process. The continuous effort to guarantee a quality education for nurses in anesthesia is a hallmark of nurse anesthesia culture.

That culture is reflected in the pages of this text. Magaw’s flexible approach to individualized learning can be seen in the chapters on different learning styles and the modern emphasis on mentorship throughout the novice-to-expert transition. The didactic training begun by McGee and Hodgins morphed into today’s evidence-based thinking and the promotion of scholarship. Hodgins’ effort to provide students a
varied clinical experience is reflected in today’s teaching of psychomotor skills and simulation labs.

Notably, throughout these changes, two aspects of CRNA culture have not changed. One-to-one supervision of nurse anesthesia students, a practice that began with Alice Magaw remains. In consideration of patient safety a student is never left to fend for herself. A seasoned CRNA mind is always immediately available.

The second unchanged feature of CRNA culture is the desire among nurse anesthetists for acceptance within the academy. In 1936 Helen Lamb wrote that nurse anesthesia schools should “strive to secure the benefits which universities have extended to other professional groups.” With the advent of doctoral education, nurse anesthesia now seems poised to gain the benefits that Lamb envisioned 80 years ago.

* A Resource for Nurse Anesthesia Educators sums up what makes a CRNA unique. Each chapter tells us a part of what we want our students to understand, to do, and to become. Here you will find the means for teaching adult learners to think for themselves, develop skills, and solve the myriad problems associated with nurse anesthesia.

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Chapter Summaries

CHAPTER 1
The Socratic Method and Its Use in Teaching Student Nurse Anesthetists

Richard E. Haas, PhD, CRNA, PHRN

The Socratic method is an extraordinary way of teaching your students how to think for themselves, respond to questions regarding their practice, and explain their rationale behind the clinical decisions they make. It is equally demanding for the instructor and the student, yet filled with rewards for both. The student is engaged with the teacher, self-directed, and growing in confidence with each passing day. The instructor gets to make a palpable difference in the lives of his or her students, while continuously monitoring their progression through a demanding program of study.

CHAPTER 2
A Conceptual Model for Nurse Anesthesia Education

Maura McAuliffe, PhD, CRNA, FAAN

Nurse anesthesia is a complex domain that requires mastery of a broad range of components that together reflect the real-world complexity of the field. Prepackaged prescriptions for action do not exist in nurse anesthesia because all possible scenarios are impossible to anticipate. The goal of education is for students to acquire a mastery of experiences with a broad range of cases that reflect the complexity of anesthesia practice. To accomplish this, learners must assimilate knowledge from a variety of sources to construct solutions that suit the needs of the situation at hand. To achieve a level of successful performance as entry-level providers, student registered nurse anesthetists need experience in applying theory and principles to a large number and variety of cases.

CHAPTER 3 (expanded)
Health and Wellness in Nurse Anesthesia Education

Adrienne G. Hartgerink, DNP, CRNA
Sandra K. Tunajek, DNP, CRNA

As health care practitioners, the more we know and understand about stress, the more proactive we all can become in achieving balance and perspective in our professional careers. Stress prevention and coping strategies are important to understand if we are to have meaningful discussions regarding health and well-being with all those who participate in education be they students, teachers, administrators, or policy makers.

CHAPTER 4
Legal Issues for Educators

Mary Jeanette Mannino, JD, CRNA

Teaching law to nurse anesthesiology students is a challenge because of the changing political, legal, and economic environments. There are many individuals and institutions who will use legal excuses or threats to influence CRNA practice. If the students, graduates, and faculty understand the basic tenets of law and where to find resources, the entire profession will benefit.

CHAPTER 5
Educational Requirements for Nurse Anesthesia Programs

Francis Gerbasi, PhD, CRNA

As programs transition from awarding master’s to doctoral degrees for entry into nurse anesthesia practice, it is important that program administrators and faculty continue to ensure their programs meet accreditation requirements and graduates have the entry-into-practice competencies to provide safe, competent, and ethical anesthesia and anesthesia-related care to patients for diagnostic, therapeutic, and surgical procedures.
CHAPTER 6
Evidence-Based Nurse Anesthesia Practice: Learning, Practicing, and Teaching

John J. McFadden, PhD, CRNA

Just as the scientific method has evolved since its early inception in the 16th century, the evidence-based practice model will evolve and continuously be refined. No professional should embrace the process because it is the popular trend in health care. Instead, the conscious decision to subscribe to the process should be because it is in the best interest of the patients for whom we care. Educating current and future nurse anesthetists to use the EBP process to daily practice requires nurse anesthesia educators to employ a variety of pedagogical strategies. Developing skill in the EBP process requires a combination of theoretical understanding and application in the clinical setting. The real challenge for nurse anesthetists who practice evidence-based nurse anesthesia will be in embracing multiple ways of knowing, synthesizing the best evidence with clinical judgment, and honoring the singularity of each patient entrusted to their care.

CHAPTER 7 (new)
Admissions Criteria for Nurse Anesthesia Programs

Shawn Collins, DNP, PhD, CRNA

There continues to be a lack of consensus on the admission criteria that predict successful transition—academically and clinically—through a nurse anesthesia educational program and successful passing of the national certification examination. However, good practice demands that decisions be made on evidence rather than speculation. In choosing the admission criteria, admission committees should have a firm justification of the predictive validity of the chosen criteria in relation to the academic and programmatic performance outcomes. Rather than relying on a few sources of evidence, nurse anesthesia program admission committees should consider a variety of information about applicants. The information considered should include both cognitive and noncognitive criteria until such time that research demonstrates otherwise.

CHAPTER 8
Generational Dynamics in Nurse Anesthesia Education

Lisa Mileto, DNP, CRNA

A generational transformation is occurring in classrooms across America. Generational differences impact anesthesia education and have an impact on both clinical and classroom pedagogy. Baby boomer faculty are teaching record numbers of Gen X and Gen Y students. Generation Z is ushering in a new era with new values. This great generational transition has significant implications for anesthesia educators and the transition to doctoral education. Instructors need to use current best-teaching strategies and develop innovative, flexible teaching methods that foster autonomous and self-regulated learners. To harmonize a diverse student population, educators should understand what motivates members of different generations and institute teaching techniques that meet their needs.

CHAPTER 9
The Importance of Effective Communication

Michael D. Fallacaro, DNS, CRNA, FAAN
Betty J. Horton, PhD, CRNA, FAAN

Effective communication is an asset to nurse anesthesia program administrators, didactic instructors, clinical instructors, and their graduate students. It is a skill that can produce a better understanding of people while at work or at home, or while engaged in outside activities. It also enables one to create a supportive learning environment in which students can acquire the relevant knowledge, skills, and competencies to be excellent nurse anesthetists. Good communicators always look for opportunities to practice and improve the way they communicate and the way to teach their graduate students to communicate.
CHAPTER 10
Theory and Principles of Adult Education for Clinical Instructors

William Hartland Jr., PhD, CRNA

Progressing toward the goal of becoming an effective clinical instructor requires effort, patience, and dedication. As clinical instructors we must remember that our students are adult learners and that various principles of adult learning apply. We should utilize the perceived characteristics of effective clinical instructors to help us identify those areas in our own clinical teaching that need improvement. We must also remember the importance of maintaining the learning environment and the power we possess to accomplish that end.

CHAPTER 11
Learning Styles and Their Effect on Clinical Instruction

John P. McDonough, EdD, CRNA, ARNP
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Several distinct learning styles have been identified. Although there certainly may be some advantages for instructors in becoming familiar with these styles and their effect upon learner preferences, it is not a requirement for effective clinical instruction. It is more appropriate to expect the student in the clinical area to adapt his or her learning style to the teaching style of the clinical instructor than vice versa. As the individual tasked with responsibility for patient care, the preceptor must be comfortable in coordinating the process of teaching with the process of patient care. If the clinical instructor can incorporate specific teaching techniques that match the learning preferences of the students, all the better; however, data indicates that learners are capable of adjusting their preferences to match the teaching styles of the instructors.

CHAPTER 12
Ethics of Clinical Instruction

Kathy Wren, PhD, CRNA
Timothy Wren, DNP, RN


Ethics, a discipline which looks at right and wrong, is useful to many people in many professions. In the health care industry, hospitals have ethics committees that review, discuss, and evaluate the morality of health care decisions and interventions. However, an ethics committee for clinical faculty does not exist to assist in the day-to-day decisions that are required in student learning environments. Schools have clinical guidelines and accrediting bodies, such as the Council on Accreditation (COA), have recommendations for dealing with students in the clinical environment but clinical faculty must rely on their own ethical meters when determining what is appropriate for each student, patient, and clinical experience.

In this chapter, an ethical dilemma from the clinical perspective was discussed to demonstrate the process of ethical decision-making. A model was presented, providing a visual representation of the ethical decision-making process. Interventions aimed at resolving the ethical dilemma were presented and evaluated to promote an improved understanding of the process.
CHAPTER 13
Faculty Development

Judy Thompson, DNAP, APRN, CRNA

So much has changed in the past 10 years. We, as CRNAs, were trained to be clinicians first and foremost. The role of the educator has, for most of us, fallen on our shoulders. Some of us are natural teachers with the gift of patience, the knowledge to precept, and the ability to motivate; but, for the majority of us, we need the tools that good faculty development programs can provide. This quote from the former website of a community college is just as relevant today as it was back when I wrote this chapter in 2006: “Faculty is one of our greatest assets. A program of faculty development is therefore dedicated to aggressively supporting the ongoing personal and professional growth of faculty. By providing information, training, forums, connections, and activities, the program vitalizes the faculty, strengthens the program, improves the quality of instruction, and helps the school better serve the community.”

CHAPTER 14
Simulation in Nurse Anesthesia Education

John M. O’Donnell, DrPH, MSN, CRNA
Paul E. Phrampus, MD, FACEP, FSSH

Over the past two decades, nursing and nurse anesthesia education has undergone a remarkable evolution. Technological innovation has driven change with the advent of learning management systems, wireless networks, and a wide variety of sophisticated adjuncts available to the educator. Simulation educational methods have allowed a shift from instructor-centric, static, lecture-based activities to incorporate experiential learning activities which are student- and, thus, patient-centric and designed to fully engage the participant. Simulation educational methodology is now understood as all activities in which faculty design objectives and activities that allow students to engage in experiential learning and become more ready for real clinical events. In simulation, this spectrum includes role-play, part-task specific skill training, use of standardized patient encounters, and OSCEs and computerized simulations.

CHAPTER 15
Teaching Psychomotor Skills and the Administration of Regional Anesthesia

Charles A. Reese, PhD, CRNA

Ideally, SRNA learners would be independently proficient in basic regional anesthesia techniques upon graduation. This ideal is not currently being accomplished. More highly skilled clinical instructors and increased access to clinical patient opportunities are needed. True mastery would perhaps best be accomplished by the establishment of postgraduate fellowship programs modeled after, or perhaps integrated with, those of physician anesthesiologists. Until that time, nurse anesthesia educators must develop methodologies for teaching regional anesthesia which not only emphasize technical skills, but also overall patient management and evaluation of learner competency.
CRNAs have a code of ethics that must be adhered to. Teaching students how to become professionals begins with didactic and clinical faculty and instructors serving as role models and mentors to the students. Learning the role of professionalism begins in the classroom and continues into the clinical area. It begins on day one and continues throughout the program. A formal course on professionalism should be included in the curriculum, possibly in a professional aspects course. Topics may include, but are not limited, to:

• Understanding the professional code of conduct and standards
• Identifying the role of an SRNA and CRNA
• Being successful as a CRNA
• Building a positive reputation
• Identifying appropriate and inappropriate behavior of a professional
• Conveying a professional image, including dress, make-up, hairstyle, piercings, and tattoos
• Getting along with coworkers, supervisors, and subordinates
• Avoiding conflict in the anesthesia community
• Using proper verbal and nonverbal etiquette

The practice of nurse anesthesia is both clinically intensive and incredibly rewarding. In many regulatory realms, nurse anesthesia as a professional discipline is identified as the “gold standard,” to which all the rest of advanced practice nursing is compared. In concert with our didactic preparation, it is our clinical education that develops and molds the members of our profession. Central to that effective core of education is the need to properly and thoroughly evaluate, and continually improve based upon the results of that evaluation, the development of the members of our profession.

The novice-to-expert model provides one way of examining and assessing a student registered nurse anesthetist’s clinical growth and development. The normal growth pattern for SRNAs demonstrates slow but steady progression with occasional hesitations along the way. As with normal human growth and development, students advance at different rates. Some students grow rapidly; others take longer to achieve the same growth milestones. All have periodic growth spurts when things suddenly come together (the “ah-ha” moment). However, a few students will not progress much beyond the advanced beginner stage, a condition I have dubbed “failure to thrive.” These individuals may even perform competently in situations where cases are simple, patients are healthy, and adequate support or supervision is available. However, the student who is not growing and progressing does not adapt when confronted with more difficult cases or patients, unusual or emergent situations, or rapidly changing circumstances. The novice-to-expert model can help educators distinguish students who are meeting the expected growth trajectory from those who are not.
CHAPTER 19 (new)
Innovations in Teaching and Education
Karita Käck, DNAP, CRNA

Many practicing nurse anesthetists were taught during the old regime of traditional classroom education where the teacher lectured for hours, often after a long day in clinical practice. Many can remember reaching that warm, fuzzy feeling of slowly drifting into an open-eyed snooze while the slides all blended together and the notes had fewer and fewer actual words in them. Luckily, some of the new innovations in education challenge both the educator and student alike. Many of the new trends and innovations are based on technology and involve different instructional techniques or delivery systems such as wikis, video podcast presentations, synchronous and asynchronous online delivery of classes, and the inverted, or flipped, classroom. This chapter will examine the current trends in nurse anesthesia education in the classroom and in the clinical arena.

CHAPTER 20
Simulation-Based Education: Practical Approaches to Curriculum Integration
Celeste G. Villanueva, EdD, CRNA, FNAP

The undeniable connections between health care simulation and patient safety initiatives make it imperative that nurse anesthesia education programs have strong simulation-based curricular components. Although the evidence is still not unequivocal that patient outcomes are improved by simulation training, the indirect evidence is compelling and the face validity of the methods is high. The case for effective learning with the use of well-designed simulations has definitely been made. Most experts agree that it is only a matter of time before simulation-based education becomes the norm and eventually the standard for nursing (all levels) and physician (medical school and postgraduate) education. The development speed of the interprofessional education movement is accelerating quickly and along with it the field of simulation-enhanced IPE. As a result, the literature is increasingly populated with accounts/studies based on work being done in the field of pharmacy, physical therapy, and other allied health professions, primarily through IPE activities.

CHAPTER 21
Testing the Student’s Knowledge
Vicki Coopmans, PhD, CRNA

As nurse anesthesia educators, our goal is to prepare safe, competent, and compassionate practitioners for the future. While it is important to provide the nurse anesthesia student with the necessary tools, information, and experiences to be successful on the National Certification Examination, it is also vital to instill a commitment to periodic reflection and lifelong learning. How we evaluate our students in the classroom setting can inform their future behavior and self-awareness in these areas. Using a variety of testing methods, allowing for creativity, and stimulating engagement in the learning process can help achieve these goals.

CHAPTER 22
Encouraging Scholarship Among Nurse Anesthesia Students: The Role of the Faculty Mentor
Chuck Biddle, PhD, CRNA

Nurse anesthesia educators find themselves in roles where significant and powerful professional influence occurs. The potential value inculcation that occurs regarding scholarly activity can have immediate and long-term rewards for the student. Think of your students as potential researchers and authors and do not be hesitant to share that vision with them. Talk about other student and faculty publishing successes and help your students see that scholarly activities that culminate in poster presentations, oral presentations, and published papers are goals that they can realistically achieve.
CHAPTER 23 (new)
The Doctor of Nursing Practice (DNP) Project
Brian Benham, DNP, CRNA
Madeline K. Chalenor, DNP, MHS, CRNA
Not only does a quality systematic review meet the expectations of an exceptional scholarly project for the CRNA student working on his or her DNP, but the findings of the review can then further our understanding of how we care for our patients, educate our students, and grow ourselves as educators.

CHAPTER 24 (new)
A Library Guide for the Educator
Rachel C. Lerner, MSLS
Information literacy frameworks provide clear educational goals toward which nursing students can strive, and standards that can be used to assess students and programs. Part of becoming a nurse leader is learning to be a skilled and responsible discoverer, consumer, creator, and disseminator of information. While there is more to searching, information retrieval, and information literacy than is contained within this chapter, using and teaching the search techniques, retrieval skills, and information assessment protocols described herein will allow students and educators to navigate information in databases and on the Web with greater fluency.

CHAPTER 25 (new)
Diversity and Inclusion in Nurse Anesthesia and Health Care
Marlene R. McDowell, MA
Kelli J. Scott, MS, CDM
It is imperative that the nurse anesthesia workforce be culturally competent to provide safe and high-quality care for an increasingly diverse population. A culturally competent nurse anesthetist understands his or her world as well as that of the patient, while avoiding stereotypes and misapplication of scientific knowledge. An initial and continuing educational process that integrates culturally competent care with evidence based practice will facilitate cultural awareness, both of self and others for high performing teams who deliver excellent care to each patient.

CHAPTER 26 (new)
Advancing a Career in Academia: A Guide for New Faculty
Anne Marie Hranchook, DNP, CRNA
Brenda Wands, PhD, CRNA
The role of nurse anesthesia faculty in higher education has evolved over time from a singular mission of teaching to the multifaceted demands of teaching, scholarship, and service.
• Successful advancement or promotion for college professors requires an understanding of the basic tenets of what is commonly referred to as the standard triad: excellence in teaching, scholarship, and service.
• A national move to broaden the definition of scholarship is under way. New models include not only excellence in research, but also teaching and service.
• Given the proper tools, new faculty can learn to become “quick starters” who efficiently and effectively meet the expectations for advancement in academe.”
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